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WILLIAM B. STARGER

IN THE

# SUPREME COURT OF THE UNITED STATES

October Term, 1924

No. ~~202~~ 44

CONCRETE APPLIANCES COMPANY and WILLIAM  
H. INSLEY

*Petitioners*

v.

JOHN E. GOMERY, JOHN C. SCHWARTZ, MICHAEL J.  
OMEARA, and CONCRETE CONSTRUCTION COM-  
PANY

*Respondents*

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## BRIEF FOR PETITIONERS

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ARTHUR M. HOOD

STEPHEN J. COX

CYRUS N. ANDERSON

*Counsel for Petitioners*

## INDEX.

	PAGE
Combination of patent involved invention.....	59
Conclusion .....	85
Costs .....	78
Date of invention by Patentee .....	26
Decision of Court in Third Circuit .....	75
Decisions compared .....	69
Emptman Alleged Prior Invention .....	62
Errors assigned .....	15
Grain Elevator Spouting .....	55
Infringement .....	16
Inoperativeness of Callahan apparatus, alleged .....	67
Interferences, effect of .....	63
Patentable combination of old elements .....	59
Prior art .....	44
Prior Patents .....	58
Prior Printed Publications .....	57
Statement of the Case .....	2
Subject matter of the Patent .....	7
Appendix A .....	86
Appendix B .....	102
Appendix C .....	115
Appendix D .....	117

## CASES CITED.

American Tobacco Co. <i>v.</i> Kryptok, 83 Fed. 703 .....	60
Ansonia Co. <i>v.</i> Electrical Co., 144 U. S. 11, 18 .....	91
Brown & Sharpe <i>v.</i> Starrett, 225 Fed. 997 .....	26
Burrow <i>v.</i> Kansas City, 54 Fed. 278 .....	81
Cadillac Co. <i>v.</i> Austin, 225 Fed. 990 .....	60
Capital <i>v.</i> National, 70 Fed. 709 .....	25
Concrete Appliances Co. <i>et al.</i> <i>v.</i> Meinken, <i>et al.</i> , 263 Fed. 958 .....	111
Corpus Juris, Vol. 15, p. 175 .....	81
Cropp <i>v.</i> Standard, 256 Fed. 668 .....	64
Crown Co. <i>v.</i> Sterling Co., 217 Fed. 381 .....	89
Cummings <i>v.</i> Akron Cement, etc., 6 Blatchf. C. C. 509	81

	PAGE
Delaski Co. v. Fiske Co., 203 Fed. 986 .....	44
Elliott v. Youngstown, 181 Fed. 349 .....	111
Engineer Co. v. Hotel Astor, 226 Fed. 783 .....	26
Expanded Co. v. Bradford, 214 U. S. 366, 381 .....	96
Ferro Concrete Co. v. Concrete Steel Co., 206 Fed. 666	96
Gas Co. v. United Co., 228 Fed. 684 .....	98
General Electric Co. v. Alexander, 277 Fed. 300 .....	61
Gold v. Newton, C. C. A. 2-254 Fed. 824-827 .....	94
Grinnell Co. v. Johnson Co., 247 U. S. 426, 38 Sup. Ct. 547, 62 L. Ed. 1196 .....	72-98
Hobbs v. Beach, 180 U. S. 383-390 .....	94
Huebner Co. v. Matthews Co., 253 Fed. 435 .....	96
International v. Brammer, 138 Fed. 396 .....	25
International v. Sievert, 213 Fed. 255 .....	96
Jackson Fence Co. v. Peerless, 228 Fed. 691 .....	55
Lemley v. Dobson-Evans Co., 243 Fed. 391 .....	88
Loom Co. v. Higgins, 105 U. S. 580 .....	60-96
Mineral Separation Co. v. Hyde, 242 U. S. 61, L. Ed. 286 .....	68
Morgan Co. v. Alliance Co., 176 Fed. 100-109 .....	96
National Co. v. Aiken, 163 Fed. 254-259 .....	82
O'Neil v. Railroad Co., 31 Fed. 663 .....	96
Potts v. Creager, 155 U. S. 597, 606-8 .....	94
Proudfit Co. v. Kalamazoo Co., 230 Fed. 127 .....	59
Reed v. Cropp, <i>et al.</i> , 239 Fed. 869 .....	65
Rosemary Co. v. Halifax Mills, 257 Fed. 222 .....	60
Shaw Electric Crane Co. v. Shriver, 80 Fed. 640 .....	82
Stead Lens Co. v. Kryptok, 214 Fed. 376 .....	61
Steffins, <i>et al.</i> v. Steiner, 232 Fed. 862-864 .....	82
Warren v. Oswosso, 116 Fed. 309 .....	96
Worcester v. Handy, 232 Fed. 49-65 .....	81

# Supreme Court of the United States

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OCTOBER TERM, 1924.

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No. 307.

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CONCRETE APPLIANCES COMPANY AND WILLIAM H. INSLEY,  
Petitioners,

v.

JOHN E. GOMERY, JOHN C. SCHWARTZ, MICHAEL J. O'MEARA,  
AND CONCRETE CONSTRUCTION COMPANY,  
Respondents.

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## BRIEF FOR PETITIONERS.

### **Jurisdiction.**

The jurisdiction of this Court is invoked under sec. 240 Judicial Code, on the ground that the Circuit Court of Appeals, for the 6th Circuit, has held the patent in suit No. 948,719 of February 8, 1910 valid as to claims 1, 2, 5 and 13 (*Concrete Appliances Co. et al. v. Dietrich Meinken, et al.*, 262 F. R. 958) and the Circuit Court of Appeals for the 3rd Circuit has held the same claims invalid (*Concrete Appliances Co. et al. v. John E. Gomery, et al.*, 291 F. R. 486). The first decision was rendered January 26, 1920 and March 2, 1920, and the second decision—in the present case—was rendered July 24, 1923 and January 31, 1924 (R. pp. 933-941).

Both opinions are printed as appendices (see A, B, C and D) to this brief.

The petition for certiorari was filed in this Court March 5, 1924, and granted April 7, 1924.

### **Statement of the Case.**

This suit was brought in the District Court for the Eastern District of Pennsylvania for the infringement of the Callahan patent Number 948,719 of February 8, 1910, and was dismissed for non-infringement (R. 645-653, and 284 F. R. 518). The Circuit Court of Appeals for the Sixth Circuit in 1920 held the patent valid as to certain claims (262 Fed. Rep. 958) and the Circuit Court of Appeals for the Third Circuit has now held the patent invalid as to the same claims (291 F. R. 486). The writ of certiorari was granted in order that this Court might determine the conflict.

The facts are as follows:

This suit, alleging infringement of claims 1, 2, 5 and 13 of the Callahan patent No. 948,719 of February 8, 1910 for "Material Transferring Apparatus" (R. Exbt. N, Vol. II, pp. 634-635), was brought by the petitioners, Concrete Appliances Company and Wm. H. Insley, the patent owner and licensee, respectively, in the District Court of the United States for the Eastern District of Pennsylvania, against the respondents John E. Gomery, John C. Schwartz, Michael J. O'Meara and Concrete Construction Company, by Bill of Complaint filed July 19, 1920 (R. 5).

The said United States District Court, in a final decree entered November 20, 1922, dismissed the Bill of Complaint (R. 653), pursuant to opinions filed June 13 and October 31st (R. 645 and 650, also 284 Fed. Rep. 518), in which it was held that the defendant's apparatus did not infringe.

The petitioners thereupon appealed to the United States Circuit Court of Appeals for the Third Circuit, which appeal came on for hearing, before Buffington, Wooley and Davis, Circuit Judges, and the Court, on July 24, 1923, filed an opinion and order finding the patent invalid and affirming the decree of the said District Court as modi-

filed (R. 933 and 291 F. R. 486). Thereupon and on August 1st, 1923, the petitioners requested the Court to reconsider the questions relating to the matter of costs, and this request was granted and the issuance of the mandate withheld. The Court held the matter under consideration until January 23, 1924, when it made an order vacating the order of July 24, 1923 (R. 941). The Court then, on January 31, 1924, made an order modifying and affirming the decree, directing that the cause be remanded to the District Court and directing "that the said Court modify its decree by adjudging the claims in controversy invalid," and further providing that "as thus modified the decree is affirmed, with costs" (R. 941). The said opinion of the Court of Appeals of July 24, 1923, orders of July 24, 1923 and January 23, 1924, and decree of January 31, 1924, are printed in the appendix to this brief and marked "B," "C" and "D," respectively.

Prior to the decision in this suit, the said Callahan patent had been held valid as to the same claims involved in this suit (1, 2, 5 and 13) by the Circuit Court of Appeals for the Sixth Circuit (262 Fed. Rep. 958, Warrington, Knappen and Denison, Circuit Judges), in a suit brought by these petitioners, by Bill filed August 7, 1916, against Dietrich Meinken, Roy C. Owens, and George B. Curd, in the District Court of the United States for the Southern District of Ohio, Western Division, in opinions filed January 6, 1920, and, on petition for rehearing, March 2, 1920. The said opinions of the Circuit Court of Appeals for the Sixth Circuit are printed in the appendix to this brief and marked "A." In that suit the said District Court held the said claims of the patent invalid, and this petitioner appealed to the Circuit Court of Appeals for the Sixth Circuit, which resulted in the decision sustaining the validity of the said claims of the patent. The opinion of the District Court is found at pages 43 to 46

of the record in the Circuit Court of Appeals for the Sixth Circuit (offered R. 118) which is a physical Exhibit in the present suit, marked "Joint Exhibit for Plaintiffs and Defendants," and is before this Court as such with the record of this suit.

The decision of the Circuit Court of Appeals for the Third Circuit does not sustain the District Court on the question of infringement, but says:

"The Court below held the patent was not infringed; we go a step further and hold Callahan, so far as the claims here involved are concerned, had no such patent claims to infringe." (Opinion last par.)

It is thought that the lower Court placed an extremely narrow construction upon the claims of the patent in suit, and then held the said claims not infringed, because he considered the patent invalid but did not wish to take issue with the Court of Appeals for the Sixth Circuit, and in order that the plaintiff might be required to assume the burden of the appeal. That he regarded the patent as invalid unless "limited to the specific special construction which the patentee devised" is expressly stated in his opinion (R. 648). If therefore, the decision of the Circuit Court of Appeals for the Sixth Circuit holding the patent valid is correct, the patent must be construed with reasonable breadth, and as thus construed must be infringed. There does not appear to be any serious issue as to infringement here.

The conflict between the decisions of the Sixth and Third Circuit Courts of Appeals is shown by the language of the two opinions. Thus the Circuit Court of Appeals for the Sixth Circuit, referring to the same claims which were before the Circuit Court of Appeals for the Third Circuit, said (262 Fed. Rep. 958, 965):

"On the other hand, we recall no instance of combinations of old elements which has been held to produce 'a new result' in a patentable sense and which better deserves that commendation than does Callahan's. *The quasi automatic elevation and distributing of wet concrete under the varying conditions of progressive building and by a single apparatus was an entire novelty.* No one had tried to do it; apparently, no one had thought of it; it was useful in a very high degree; and when we find a new result in this complete and extreme sense accomplished by a confessedly new combination—though of known means—we think both the purpose of the patent law and the rightful application of the decisions thereunder require that it should be awarded the merit of invention." (All italics ours, unless otherwise stated.)

The Circuit Court of Appeals for the Third Circuit, referring to the same claims, and to the same combination of old elements (Opinion next to last par.):

"In fact, we are unable to find any element of novelty either in the separate elements Callahan used or in the unification of such elements in the apparatus he suggested."

The conflict therefore arises from the holding of the Sixth Circuit Court of Appeals that Callahan's apparatus was not for a mere aggregation of old parts but for a patentable combination, and the holding of the Circuit Court of Appeals for the Third Circuit that there was no novelty and nothing patentable in that combination.

The records before the two Courts of Appeals are believed to be substantially the same, so far as they relate to the question of aggregation or invention. The record in the Sixth Circuit Court of Appeals contains *fifteen* prior United States and British patents, granted at various times between the years 1864 and 1907, and the record in

the present suit contains *thirty-seven* United States and British Letters Patent granted during the same period, including thirteen of the fifteen patents found in the first record. The thirteen patents in the present record which were before the Sixth Circuit Court of Appeals are the following:

		PAGE
No. 445,645	Simpson	684
" 464,101	Mayo	688
" 582,598	Bird	707
" 622,019	Robinson	714
" 524,984	"	693
" 702,372	Montgomery	737
" 718,092	Clarke	798
" 753,616	Nicholson	807
" 760,015	Parker	811
" 866,166	Theiss, <i>et al.</i>	832
British Patent No. 1,124 of 1864		
to Potter		872
" Patent No. 2017 of 1880		
to Johnson		892
" Patent No. 10,380 of 1988		
to Baillie		899

The additional patents in this record are believed to be merely cumulative, and to add no new element of importance to the elements shown by the patents of the earlier record, which were fully considered by the Court of Appeals for the Sixth Circuit when it rendered its decision sustaining the validity of the patent.

The present record contains much evidence relating to prior uses which was not before the Court in the Sixth Circuit, but these prior uses are thought to be substantially uses of the apparatus shown in the prior patents which were considered by that Court, and were not uses of the *complete* apparatus of the claims, nor of parts

having the same peculiar structural features of some of the parts shown in the patent in suit. It is true that the Court of Appeals for the Third Circuit referred to the record in the Sixth Circuit as a "meagre record" and expressed the belief that the patent would not have been granted had the evidence in the present record been before the patent authorities, but the Court does not point out and does not find that any new element has been proved as part of the prior art, as distinguished from more detailed proof and proof of actual use of the same elements.

The conflict therefore appears to be one of decisions based upon substantially the same facts, or at least facts which have substantially the same relation to the questions decided. A reading of the last paragraph but one of the opinion of the Circuit Court of Appeals for the Third Circuit, and a comparison of the summary of parts found in the prior art with claim 5 of the patent will show that two elements at least were lacking, viz.: the "boom carrying the conduit" or so-called "boom spout," and the vertical adjustability of the boom and bin or "means for receiving plastic material." These two elements being absent, the *combination* cannot be present in the prior art.

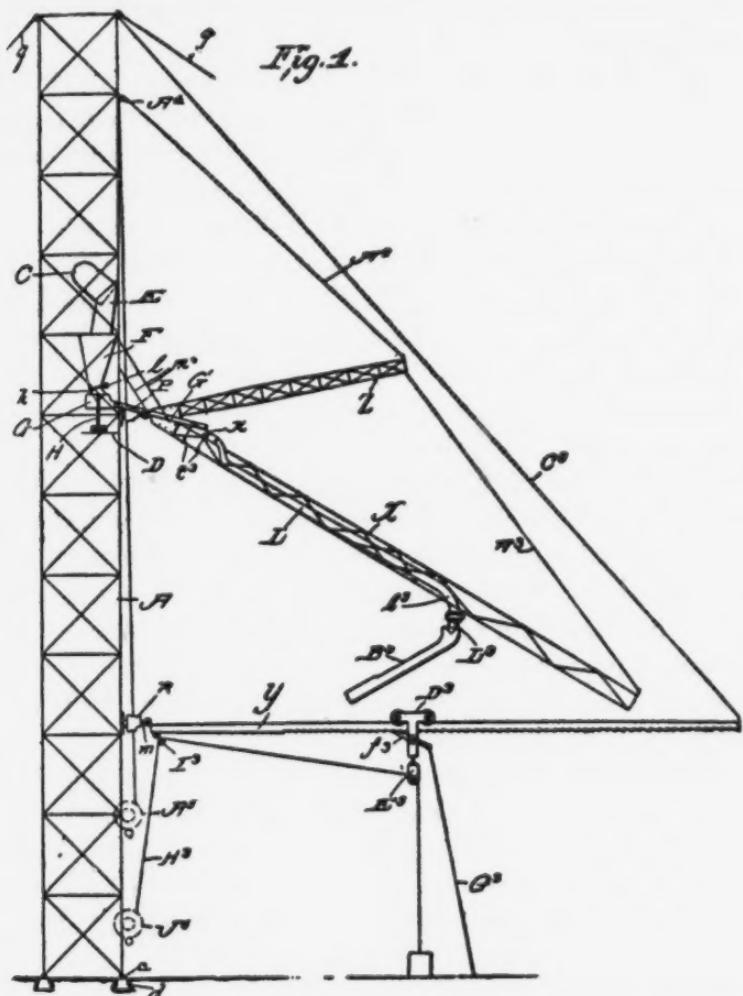
#### THE SUBJECT MATTER OF THE PATENT.

The subject matter of the Callahan patent in suit No. 948,719 (R. 634-5) is a *contractor's plant*, what is commonly known as a gravity concrete distributing plant or spouting plant, and such plants are very extensively used in the construction of buildings throughout the United States. The object is to enable the builder to bring all his concrete making materials to one point on the job, mix them there and then, by means of this gravity distributing plant, to elevate them and chute them to any and all points

throughout the entire growing structure, and without reconstructing or rearranging the various parts of the plant, so that once the concrete distributing plant is set up it will remain substantially intact and supply all parts of the building. When the building is completed the concrete distributing plant is taken down and removed and may be set up and used in the same manner on another job, and so on. The construction and arrangement is such that the plant may be used on *any and all ordinary buildings*, and under any and all conditions *without alteration*. In other words, the plant covered by the patent is in effect a *contractor's tool or implement, universally usable on all usual building constructions*. It may also be used without alteration in the construction of walls, bridges, viaducts and other works.

It comprises a tower in which the concrete is elevated to the proper height, as the building rises, a vertically adjustable receptacle on the tower which also rises, with the building, and conduits or "spouting" provided with a swinging and vertically adjustable boom, or its equivalent, and enables the builder to distribute concrete to all parts of the building laterally and vertically, without rebuilding or rearranging the distributing plant. These plants are a familiar sight in every section of the country.

The following cut, which is a reproduction of Fig. 1 of the patent (R. V. III, p. 128), shows diagrammatically an embodiment of the improvement:



In this illustration, A is a skeleton tower, which may be erected to the height of the building in the first instance or extended upward as the building rises by simply adding the interchangeable duplicate sections at the top of those originally placed.

*C* represents a common form of hoisting bucket, arranged to be raised to any desired point in the tower and to automatically dump the concrete—which is mixed at the base of the tower—into a hopper or receptacle represented at *F*.

*G* is a pan, bin or “receptacle” which receives and holds the mixed concrete, and from which the concrete is fed as desired, by means of a suitable gate, to the conduits chutes or spouts extending to all parts of the building.

The hopper *F* and pan *G* constitute the “receptacle” for the material of the claims, and are mounted in the tower in such a manner that they may be moved upwardly therein as the building rises, so that they will always be elevated above the level of the concrete work and give the concrete a proper head so that it will flow by gravity to the points of application.

*L* is the conduit chute or spout through which the concrete flows from the adjustable receptacle in the tower to any and all parts of the building. In the illustration it consists of a pipe or conduit carried by a long arm or “boom” consisting of bars or rods and truss work. The conduit proper is inside this boom and connected therewith so that the two form in effect a unitary structure. The boom or arm is represented at *X*.

The combined boom and conduit or “boom spout” is also vertically adjustable on the tower, so that, like the receptacle it can be raised higher and higher as the building grows. It is also mounted so that it can be swung sidewise through the greater part of a circle, and also so that it can be swung up or down.

The chute or conduit *L* has a swiveled end section *B*<sup>3</sup> jointed thereto, and there may be as many of the sections *L* as the lateral dimensions of the building require. The boom chutes are commonly made 48 feet in length, and it will be seen that not more than two or three of them will be needed to provide a radius sufficient to cover any ordinary building area.

The claim of the patent taken by the Court of Appeals for the Sixth Circuit as a typical definition of the improvements is claim 5, which reads:

"5. An apparatus for the purpose described, comprising a tower, a conduit, extending laterally therefrom, a suitably-supported, horizontally-movable *boom carrying the conduit*; said boom being *adjustably connected* with the tower and adapted to be arranged *at various points in the height thereof*, means for raising plastic material to the point desired in the height of the conduit, and means for receiving plastic material from the raising means and conducting the same to the conduit; the said receiving and conducting means being *adjustable in the direction of the height of the tower*."

It will be seen that this claim is for an apparatus consisting of a combination of the following parts or elements.

1. A tower,
2. a conduit extending laterally therefrom,
3. a suitably supported horizontally-movable *boom carrying the conduit*; said boom being *adjustably connected* with the tower and adapted to be arranged *at various points in the height thereof*,
4. means for raising plastic material to the point desired in the height of the conduit (tower),
5. means for receiving plastic material from the raising means and conducting it to the conduit; said receiving and conducting means being *adjustable in the direction of the height of the tower*.

In other words, it calls for an apparatus consisting of (1) a tower, (2) a conduit, (3) a swinging and vertically

adjustable boom carrying the conduit, (4) a hoisting bucket or the like, and (5) a vertically movable bin or receptacle communicating with the conduit.

The details of the illustrative embodiment of the improvement claimed are fully described and shown in the specifications of the patent, and need not be here described at length. The patent is not limited to such details of construction (Pat. p. 3, lines 69 to 77).

#### RESPONDENTS' APPARATUS.

##### *First Structure:*

Prior to the filing of the bill of complaint, respondents were using the apparatus shown in petitioners' exhibits *F*, *G* and *H*.

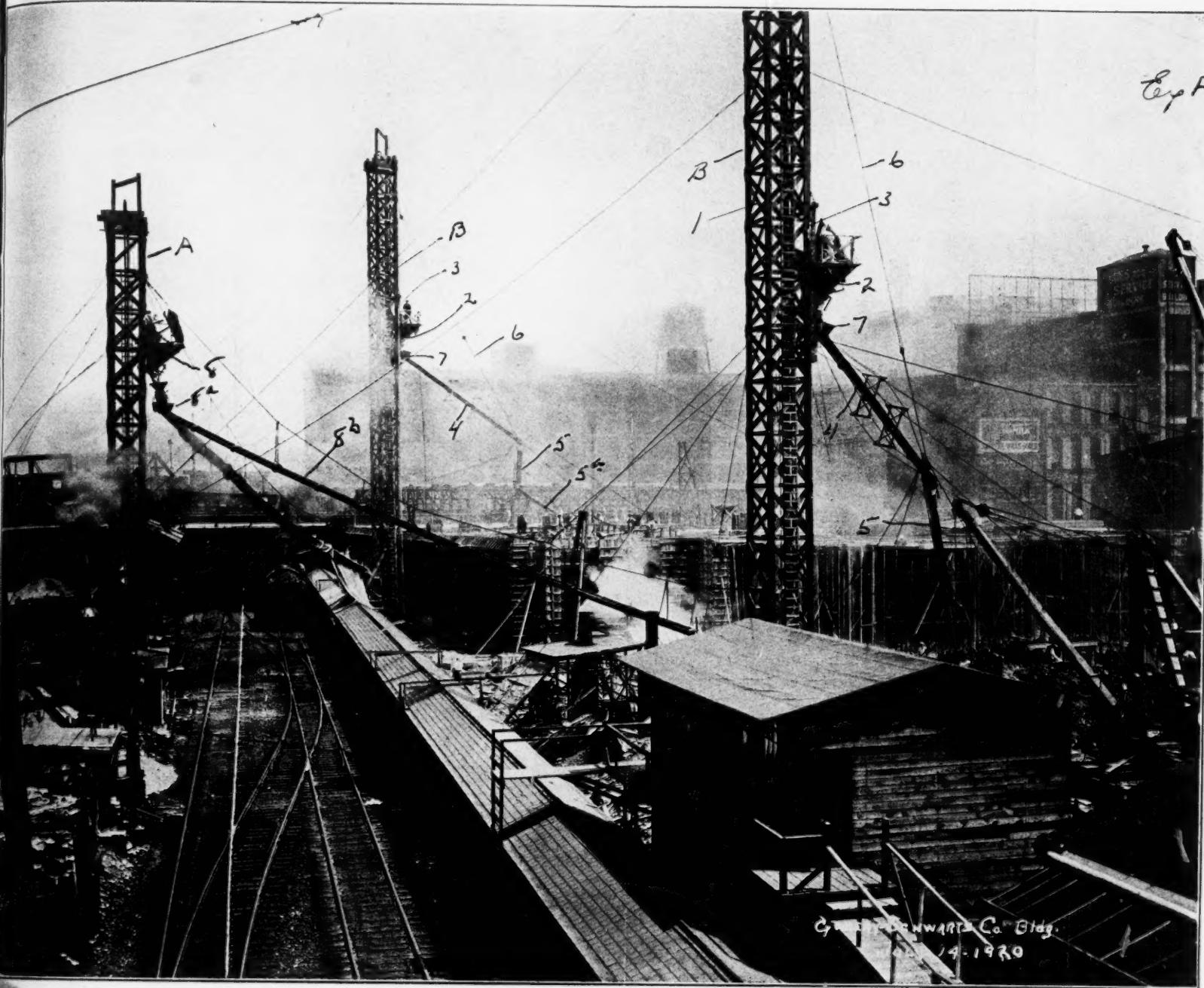
Referring to exhibit *F* (printed herewith and designated "Defendants' Apparatus Before Bill of Complaint") it will be noted that this apparatus comprises the following mechanism:

Closely adjacent to the building site, at two points, is a tower *B*.

Vertically adjustable on each of these towers, is a hopper 2 to the discharge end of which is swiveled at 7, a boom-chute member 4, corresponding to the similar member composed of *L* and *X* of the patent, the outer end of which is suspended, from the upper end of the tower by the suspension line 6. Swiveled to the outer end of the element 4 is the upper end of an extension chute 5.

Within the tower is an ordinary hoisting bucket of the automatic dumping type and capable of properly elevating the concrete.

The vertical adjustment of the hopper is facilitated by a vertically adjustable carriage 3 slidably mounted on the face of the tower and carrying the hopper 2. The inner end of the boom-chute element 4 being swiveled to the



DEFENDANTS' APPARATUS  
BEFORE  
BILL OF COMPLAINT



hopper, the vertical adjustment of the hopper is accompanied by the vertical adjustment of the inner end of element 4.

The element is a *composite* boom-chute element having chute functions and boom functions, and is the full mechanical and functional equivalent of the members *X* and *L* of the Callahan patent.

The operation of respondents' apparatus was as follows:

The hoisting bucket being lowered to a point near the foot of the tower, was filled with concrete and hoisted to hopper 2 into which its load was automatically dumped. The concrete flowed from hopper 2 through the element 4 and chute 5 and was discharged from the lower end of this chute to the desired point of deposit anywhere within a semi-circular area having a radius equal to the combined lengths of the two elements 4 and 5.

It will be noted that the two elements 4 and 5 were supported from the tower in co-operative relationship with the hopper, also supported by the tower, and that the area of concrete deposit-effectiveness of the apparatus was entirely free from obstruction by any necessary supporting trestles or other elements to be supported on the form work into which the concrete was to be deposited.

Respondents' building operations, as will be noted from Exhibit *F*, were closely alongside railroad tracks and there was not sufficient room between the building site and the railroad tracks for storage of sand, gravel, cement, etc., required for the production of the fresh concrete mixture. It was necessary, therefore, for this mixture to be produced upon the opposite side of the railroad tracks.

Respondents, therefore, provided the tower *A* equipped with hoisting mechanism and a hopper 8. Extending from tower *A* to each tower *B* was a fixed suspension cable from which were suspended the two chute lines, 8b and 8c, the

receiving ends of which were in position to receive the discharge from hopper 8 and the discharge ends of which were supported respectively in position to discharge into the hoisting buckets of the towers *B, B*, when said buckets were in their lowest position.

The chutes 8b and 8c, and their suspension lines were fixtures throughout the entire building operation, the discharge points for these chutes remaining the same at all times. Consequently there was no variation in the vertical location of the hopper 8 during the building operation.

The use of the apparatus shown in this Exhibit *F*, as well as that shown in Exhibits *G* and *H*, is admitted in the answer (par. 1, R. 9), which exhibits are offered at R. p. 111. The use of the other apparatus, shown in Exhibits *I, J, K, L and M*, is also admitted (R. 111).

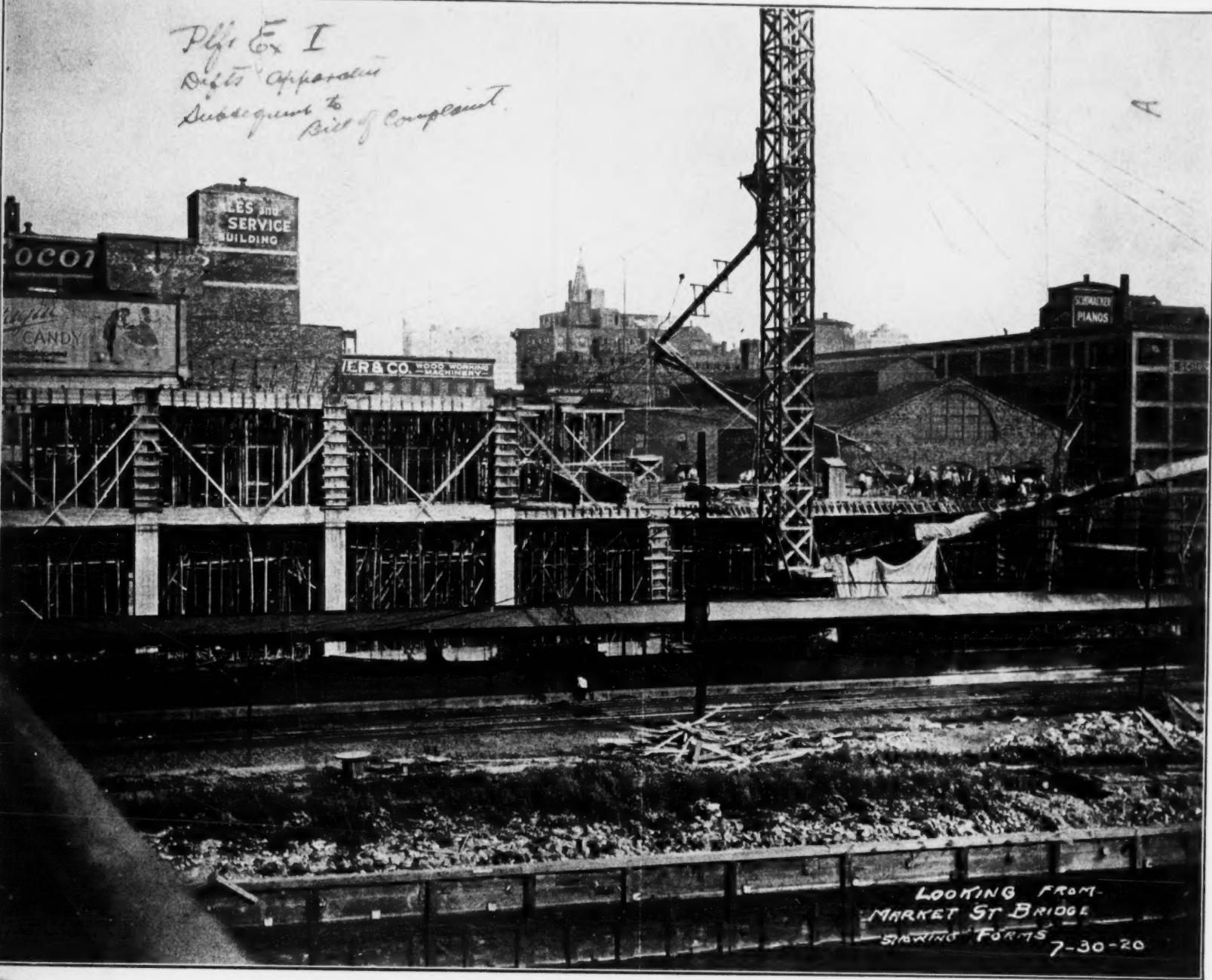
Because of the immobility of the apparatus comprising the tower *A*, hopper 8, chutes 8b, 8c, and lack of any boom construction petitioners did not include such apparatus in its claim against the respondents in the present case.

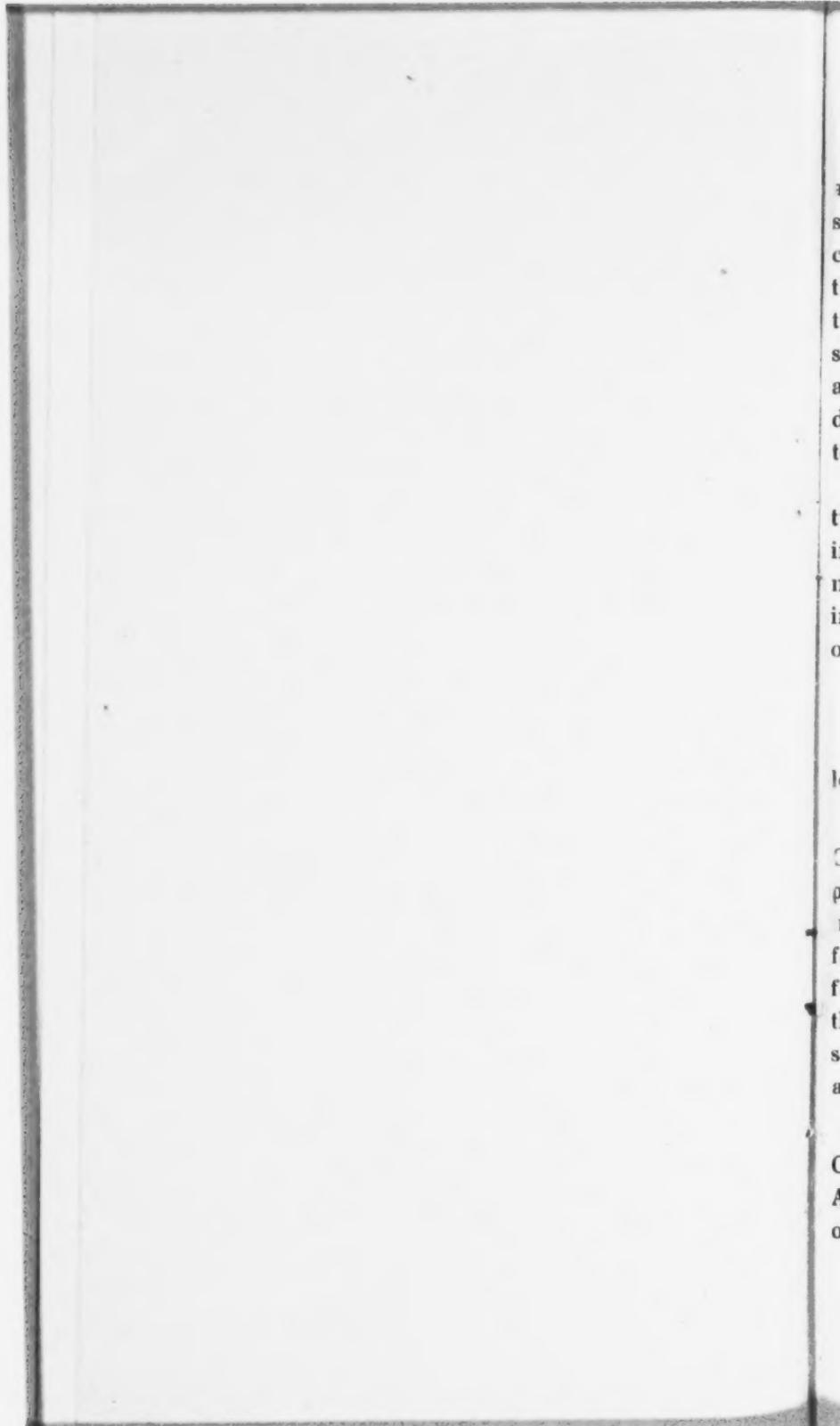
#### *Second Structure:*

After the filing of the bill of complaint, but before the hearing on motion for preliminary injunction, respondents modified the tower *B* structures, of their exhibits *F, G* and *H*, as illustrated in petitioners' exhibits *I, J, K, L, and M*, exhibit *I* of which is reproduced herewith and designated "Defendants' Apparatus After Bill of Complaint." It was agreed by both parties that this modified structure should be considered as though it had been put into use prior to the filing of the bill of complaint.

The sketch marked "Fig. 7" (*infra*) illustrates this modification. Here the tower *A*, hopper *F*, boom-chute *L-X* and suspension member *A<sup>2</sup>* are exactly the same as in the earlier structure.

Pfj Ex I  
Def'ts' Apparatus  
Subsequent to  
Bill of Complaint.





The second chute  $B^3$ , however, was of the counterbalanced type, as illustrated in Fig. 7, where the chute  $B^3$ , suspended by a gimble joint from the lower end of the chute  $L$ , is provided with a counterbalancing truss  $V$  so that its lower end needs no external support. It was found that the boom-chute structure  $L-X$  was not sufficiently strong, to carry the added weight of the counterbalance, and consequently the additional boom-arm  $X'$  was introduced, its lower end being supported by pivot  $m'$  on the tower.

It will therefore be seen that both of respondents' structures complained of embody the improvements defined in the patent in suit and structural features which are mechanical equivalents of those shown and described in the patent and fully comprehended within the meaning of the claims.

#### **The Errors Assigned.**

The errors here assigned may be summarized as follows:

1. That the Circuit Court of Appeals for the Third Circuit erred in assuming that all the elements of the patented improvements are found in the prior apparatus in substantially the same form and relation, and performing the same functions, whereas the structural differences between the combinations of the prior art and the parts thereof and their failure to provide the constructor's plant of the patent or perform its functions is apparent.
2. That the Circuit Court of Appeals for the Third Circuit erred in not holding with the Circuit Court of Appeals for the Sixth Circuit that whereas the elements of the patent are found in the prior art, in substance or

in form, and some of them were combined in apparatus, the improvements of the patent are a true combination securing a cooperative and unitary result and producing a unitary structure not anticipated in form or in substance by the prior art.

#### **ARGUMENT.**

##### **I.**

**There is no serious question of infringement. The apparatus of the patent and respondents' apparatus are substantially the same in structure and in result.**

It will be apparent from the foregoing that the respondents' apparatus contains all the elements of the patent in suit in substantially the same form, in the same relation to one another, and performing the same functions.

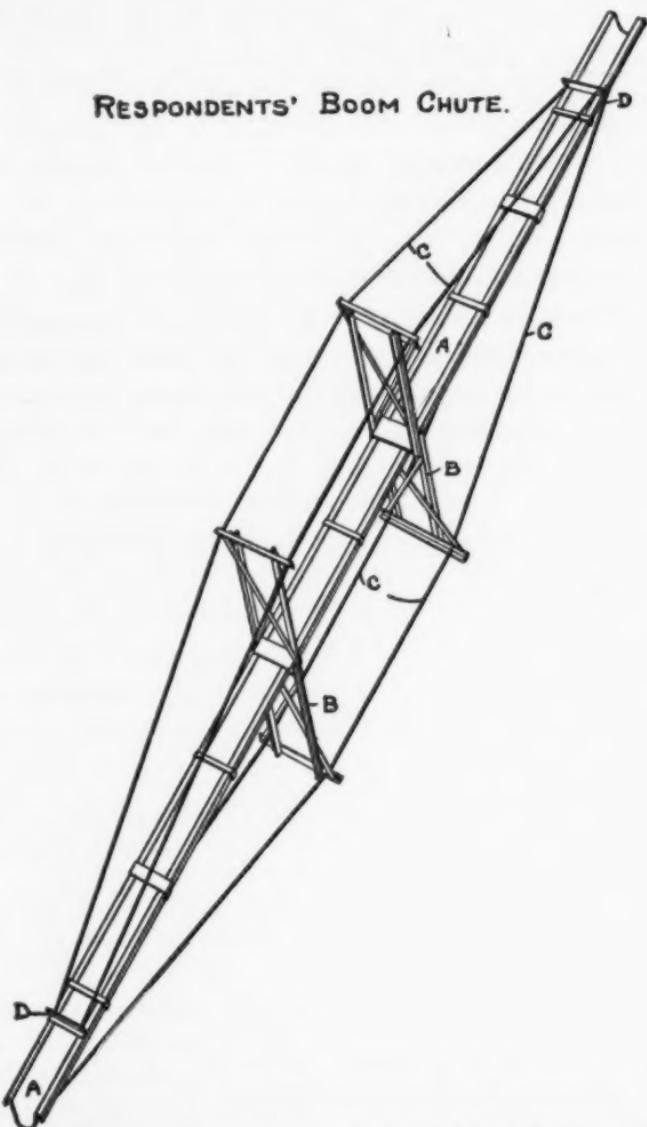
Reading claim 5 of the patent in suit on the respondents' apparatus as shown in Exhibit F and inserting the reference characters of the Exhibit we have the following:

An apparatus for the purpose described, comprising a tower (B), a conduit (4) extending laterally therefrom, a suitably-supported horizontally movable boom (see supporting frames and rods on 4) carrying the conduit; said boom being adjustably connected (at 7) with the tower and adapted to be arranged at various points in the height thereof (with hopper 2), means for raising plastic material to the point desired in the height of the conduit [tower] (the hoisting bucket), and means for receiving plastic material (hopper 2) from the raising means and conducting the same to the conduit; the said receiving and conducting means (2) being adjustable in the direction of the height of the tower.

This construction and operation of the respondents' apparatus is not questioned.

The only difference between the structure of the patent and the respondents' structure is in the boom-chute, which in the patent consists of two distinct parts or members united by having the chute run through the inside of the boom, and in the respondents' structure consists of these two parts united to form a single structure. As will be seen at 4, in Exhibit F, respondents' boom consists of truss work—as in the patent—through which the spout extends—as in the patent—but instead of having the truss work self-supporting, as in the patent, respondents' truss work is secured to the chute, so that a part of the chute forms in effect a part of the boom. The following illustration marked "Respondents' Boom-Chute" shows the details of construction.

RESPONDENTS' BOOM CHUTE.



The chute proper is the part *A*, and the boom portion consists of the frames *B* and connecting rods or wires *C* running through the frames and having their ends connected to the chute proper at *D*. It will be apparent that if the boom structure were removed from the chute it

would not be self-supporting. However, to run rigid rods from end to end of the boom structure so as to support and stretch the rods *C*, instead of having them stretched and supported by the chute would be an equivalent construction. Likewise to connect the truss rods of the boom of the patent with the chute *L* instead of connecting them with the rods running parallel with the chute would produce an entirely equivalent structure.

Obviously the chute could be outside the boom and connected therewith rigidly or flexibly and the boom could be either parallel with it or disposed at an angle thereto, without departing from the scope of the improvement, which contemplates merely in effect a chute and a boom supporting it, the two parts being so combined or connected as to act and move in unison, so that the chute part is supported and strengthened by the boom part and is thereby enabled to support extension chutes to increase the radius of gravity distribution.

As previously stated, respondents have two forms of apparatus which are complained of in the present case, the first having been in use at the time the bill of complaint was filed, and the second having been put into use subsequent to the filing of the bill of complaint but prior to the hearing on motion for preliminary injunction.

By agreement of the parties, both of these forms are to be considered.

The first of these forms is illustrated in the inserted Fig. 6 (*infra*).

This apparatus comprised a tower *A*, a hoisting bucket *C*, a hopper *F* vertically adjustable on the tower, a trussed-boom-chute element *L-X* pivotally suspended at *O*, at its inner end, from the hopper *F* and supported at its outer end by the suspension member *A<sup>2</sup>* from the tower at the point *R*. A second chute section *B<sup>3</sup>* was suspended from the outer end of the first chute member by a swiveling element.

The suspension point *O* was vertically adjustable on the tower and consequently the chutes *L* and *B*<sup>3</sup> were vertically adjustable on the tower.

It is immaterial whether the boom-chute element *L-X* is suspended from the hopper by the member *O* or pivoted directly upon the tower upon the vertically adjustable member *m* as shown in the sketch.

The boom-chute element *L-X* comprises a longitudinally medial sheet iron chute or trough *L* stiffened, to resist compressive and buckling stresses, by means of a pair of transverse frames or struts *YY* and four tension rods *W* passed over the corners of the transverse struts *Y* and secured at their ends to the ends of the chute *L*. This was the common form of boom construction except that in the common form, the longitudinally medial member *L* would commonly be a solid element or a latticed element instead of a chute or trough.

In this construction the hopper, "boom" and chutes were vertically adjustable on the tower; the tower was increased in height from time to time as the building progressed; the concrete was hoisted in the bucket *C* and delivered to the hopper *F*, in whatever position it might lie; the concrete was delivered from the hopper to the inner end of the chute *L* and flowed through this chute to the chute *B*<sup>3</sup> and, flowing through this chute, was delivered from the outer end of chute *B*<sup>3</sup> to any desired point in the various floor levels, the two chute sections being supported from the tower and capable of being swung about their respective pivotal connections in such manner that the delivery end of the second chute could be brought to successive positions throughout its horizontal areas.

The second form is illustrated by Fig. 7 (*supra*).

Here the parts *A*, *C*, *F*, *O*, *L-X* (including *Y* and *W*), *A*<sup>2</sup>, *R*, and *B*<sup>3</sup> were retained.

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It was desired, however, that a third chute section  $B^4$  be connected to and partially supported by the second chute section  $B^3$  and for that purpose there was associated, with the chute section  $B^3$ , a counter-balancing truss  $T$ . It was found, however, that the additional weight of the counter-balancing truss was too great to be borne by the boom-chute combination  $L-W-A^2$  and consequently there was added a second boom arm  $X^1$  pivoted, at its inner end, to a pivotal support  $m^1$  on the tower, and connected at its outer end to the outer end of the boom-chute element  $L-X$ , the pivotal support  $m^1$  being vertically adjustable on the tower.

In this form, therefore, we have not only the boom-chute construction of the first form, but also a separate and distinct boom "carrying the conduit," as the claims express it.

In the accompanying six sketches, Fig. 1 is a reproduction of the pertinent portions of Fig. 1 of the patent differing therefrom merely in minor and unessential details. That is to say, we have here the tower  $A$ , the hopper  $F$ , the hoisting bucket  $C$ , the "boom"  $X$ , the strut  $Z$ , the suspension lines  $A^2-A^3$ , the conduit  $L$ , and the second conduit  $B^3$ . The "boom"  $X$  is pivoted upon the tower at  $m$ .

In the patent, the conduit  $L$  is encased within the latticed "boom"  $X$  whereas in Fig. 1, under discussion, the conduit or chute  $L$  is laid along upon the top of the element  $X$  in order that it may be more clearly distinguished. In Fig. 1 under discussion, also, we have omitted the intermediate pan  $G$  and spout  $G_1$  of the patent because the inner end of the conduit  $L$  is brought into position to receive the concrete direct from the hopper, and the inner end of the conduit  $L$  is directly swiveled to the hopper. Such changes, however, are of the kind which would be ordinarily made in the commercial development of the invention and do not in any way alter the cooperative relations or functions of the several elements.

In this construction the "boom" of claim 5 is composed of the elements  $X$ ,  $Z$ ,  $A^1$  and  $A^2$  because, clearly, the element  $X$  by itself, and without the suspension member  $A^1$ ,  $A^2$ , would be incapable of performing the function for which it was designed in the specified combination, *i. e.*, the SUPPORT OF THE CONDUIT FROM THE TOWER and independent of any external support.

Here, unquestionably, the conduit is carried by the boom and there is a "boom carrying the conduit."

In this case, the conduit, being supported by the boom element  $X$  throughout its entire length, may be of comparatively light material and it may or may not be physically connected to the boom element  $X$  in such way as to contribute its strength to the boom element  $X$  in such manner as to stiffen it. The boom element  $X$ , however, stiffens the conduit throughout its entire length and enables it to perform its function as a conduit for the mush concrete.

Turning now to Fig. 2 we find the same construction and arrangement of elements illustrated by Fig. 1, excepting only that the strut  $Z$  has been dispensed with and a single suspension member  $A^2$  serves to support the outer end of the boom element  $X$  from the tower and, in turn, the receiving end of the second chute element  $B^2$  is supported, from the tower by the boom composed of the "boom" element  $X$  and the suspension member  $A^2$ .

Clearly the construction shown in Fig. 2 is the mechanical equivalent of the construction shown in Fig. 1, and is, therefore, within the terms of claim 5.

In Fig. 3 the individual elements are identical with those shown in Fig. 2 and identical with the corresponding elements shown in Fig. 1. The only difference is that the boom element  $X$ , instead of being downwardly inclined, at the same angle of inclination as the chute, is upwardly inclined. In order, therefore, that the chute may be car-

ried by the boom, *i. e.*, supported by the boom in position to permit the concrete to flow through it, a supplemental suspension member  $A^2$  is provided between the outer upper end of the boom element  $X$  and the outer lower end of the chute  $L$ , and a connection  $U$  is provided between the boom element  $X$  and the chute element  $L$  at the point of intersection of the two elements.

In this arrangement the chute is only supported at its ends and at its middle. Naturally, under such circumstances, the chute would have to be somewhat stiffer than the chute in the forms shown in Figs. 1 and 2 but only the skill of a mechanic would be required to provide the additional stiffness and this stiffness might be obtained either by using heavier material for the chute itself or by providing a brace either in the form of a truss or by supplemental compression members.

There could be no possible doubt that the construction shown in Fig. 3 is the full equivalent of the constructions shown in Figs. 1 and 2. In fact, they are identical, so far as structural elements and cooperative functions are concerned. There is in this construction, unquestionably, a "boom carrying the conduit."

In the construction shown in Fig. 4, the boom element  $X$  is upwardly inclined, as in Fig. 3, but is dropped down somewhat lower on the tower so that its point of intersection with the downwardly inclined conduit  $L$  is at the outer end of the conduit so that a single suspension member  $A^2$  is all that is necessary. In this construction, as in Fig. 3, the upper receiving end of the conduit is suspended from the hopper and, as it is unsupported except at its ends, it would, of necessity, have to be either of heavier material than the conduits in the preceding figures, or would have to be trussed or braced in some manner. Such increase of strength, however, would not in any way alter its function as a conduit and, clearly, it is "carried by" the

boom (elements  $X$  and  $A^2$ ), because any horizontal swinging of this boom necessarily produces horizontal swinging of the conduit. It will also be noted that at least half of the weight of the conduit is directly supported and carried by the boom  $X-A^2$  and, the weight of the second conduit section  $B^3$ , or at least half of it, is also carried by the boom  $X-A^2$ .

Clearly then the construction shown in Fig. 4 is the same, as to elements and their cooperative relationship as in Fig. 3 or Figs. 1 and 2.

In Fig. 5 we find the same tower, bucket, hopper and conduit as in the preceding figures.

Instead of the plain latticed boom element  $X$  found in the preceding figures, however, there is a boom element  $X$  which is composed of a central, or longitudinal medial strut  $X$ , a pair of transverse struts  $YY$ , and tension members  $W$ , this whole boom element being pivoted at  $m$  on the tower and supported at its outer end by the suspension member  $A^2$ .

Resting upon this trussed boom element (composed of the members  $X$ ,  $Y$  and  $W$ ) is the conduit  $L$  which, being supported through a major portion of its length may be somewhat less strong than in the arrangements shown in Figs. 3 and 4.

Unquestionably we have here a "boom carrying the conduit" exactly as in the preceding figures. The change in the form of the boom element  $X$  does not alter the combination or vary the cooperative relationship.

These diagrams show that each of the structures illustrated is a combination of five elements; that each of these elements has its counterpart in each of the six structures; that the same combination of five elements exists in each of the structures; that each structure is, both structurally and functionally, the equal and equivalent of each of the others.

*When the structurally and functionally different apparatus of the prior art, which respondents contend anticipate the improvements of the patent, are considered, it will be apparent that there is really no issue of infringement here because the apparatus of the patent and respondents' apparatus stand alone and together in a position quite removed from these other devices.*

Taking another view of the matter, and referring again to the illustration "Respondents' Boom-Chute," it would make no substantial difference in the construction or operation if the portions of the chute to which the boom parts are connected were severed from the chute proper, thus leaving two distinct elements; and clearly in this case there would be the chute or conduit and the boom supporting it as separate entities.

If the patent is valid it must cover such obvious variations in the details of construction. There is nothing in the specification to limit the claims to a separate and distinct boom and conduit, and the specification concludes with the statement that "it is obvious that in the future practice of my invention various changes in the form, construction and relative arrangement of parts may be made within the scope of my invention as defined in the claims appended (Spec. p. 3, lines 72-77).

It is well settled, and by many authorities, that *to unite two elements* no more avoids infringements than to divide them and make of one element two separate parts.

*Capital v. National*, 70 Fed. 709.

*Standard v. Caster Co.*, 113 Fed. 162-169.

*International v. Brammer*, 138 Fed. 396.

"Infringement is not avoided by eliminating a separate element of a patented combination, where its function is transferred to one of the remaining elements by adding thereto an integral part spe-

cially designed to perform the function of the omitted element in substantially the same way."

*Brown & Sharpe v. Starrett*, 225 Fed. 997.

The principle that the absence from an alleged infringing device of one of the elements of a patented combination covering the same, is fatal to the claim of infringement, is qualified by the principle that the absent element must be an essential one, and that a substitute for it must not be its mechanical equivalent (*Dowagiac v. Minnesota*, 118 Fed. 136).

Even if the claims were strictly interpreted, the expression of claim 5 "*horizontally-movable boom carrying the conduit*" would be sufficient to include such a device as respondents'. Under this expression, the conduit may be made a part of the boom or separate and distinct therefrom. But the patent is not for details of construction, but for a *contractor's plant* comprising certain assembled parts forming a unitary structure, and must be so considered in connection with the questions of infringement and validity.

### II.

**The date of invention of substantially the apparatus of the patent, by Callahan, the patentee, is not later than January, 1908, and nothing done by others subsequent to that date can be considered as part of the prior art.**

*The application, upon which the patent in suit was issued, was filed January 21, 1909, but the record shows that Callahan conceived, disclosed, and reduced his invention to practice, a little more than a year prior to that date.*

As early as 1901 (Q64, R. 77) Callahan was a small con-

tractor of very limited means, who had some experience in the handling of concrete, especially in the building of foundations, and he conceived, at that time, the idea, which was new to him, that freshly mixed concrete could be more efficiently handled if, instead of being mixed in a comparatively dry mixture, it were mixed "soupy enough or of a plastic consistency" so that it could be delivered to desired points through troughs or chutes, and he thus constructed a number of foundations with very satisfactory results.

In the latter part of November, 1907, Callahan went to Los Angeles, California, and looked about for a job. He saw, under construction, a reinforced concrete building, the Majestic Theatre (Q4, R. 68), and sought employment from the contractor. He interviewed Mr. Hugh W. Bryson, now deceased, and outlined to Mr. Bryson his ideas of handling concrete in the further construction of that building.

Bryson was the manager of the F. O. Engstrum Company, the contractors building the Majestic Theatre, and, of course, that organization was a going concern. Quite naturally, therefore, the employment of the unknown Callahan was in a subordinate position.

Petitioners make a great point of the subordinate character of Callahan's employment but this fact is wholly immaterial, as we shall point out at a later point in this brief.

In these early conferences with Bryson, Callahan clearly disclosed (Qs4 and 5) the particular combination defined by the claims in suit, comprising the tower which was to grow in height as the building progressed; the hoisting bucket in the tower; the mixer at the base of the tower; the vertically adjustable hopper; the chute; the swinging boom supporting the chute; and the distributing pipe at

the end of the chute carried by the boom, *these last three elements to be wholly supported by the tower and vertically adjusted from time to time as building operations progressed.*

Bryson corroborates this disclosure (XQs53-57, R. 433-434).

Bryson was called as petitioners' witness and on direct examination he was asked the following questions (R. 427-30) :

"Q13. Prior to January, 1908, do you recall talking with Emtman or *anyone* else as to the apparatus that should be used in handling the cement or mush by the gravity system \* \* \*.

"Q24. Was the rotatable mast used in connection with the cement work of the Majestic Theatre? A. Well, you might term it that. It was a boom. Part of it was a boom; afterwards it developed into a more perfected boom. My recollection was a stick about 20 or 25 feet long that was so constructed that it could vertically move with the pipe quite a degree away from the tower swinging movement and the pipe was hung from a guy wire from tower, which gave it that oscillating movement. A very crude method of what has now developed into the gravity system and particular feature of it was developed by Mr. Callahan on that particular job. That is, it was under his supervision. He was under the working foreman on a job. It was explained to me he had had some previous experience on gravity system and was allowed to put one up there. That was in 1907 about the latter part and the first part of January, 1908, and it was continuously used and improved as we went along. We first started with a 4-inch pipe and they found that clogged; then we got a 6-inch pipe and found that clogged; then we got an 8-inch pipe all with this little boom or pole or little arm and pipe suspended from tower by cable and swivels so as to get an

oscillating vertical movement. That was very crude compared with drawings that came after, so far as a whole gravity system was concerned, which had to be developed from different angles, so we could use it from a practical standpoint."

It will be noticed that question 13 was not limited to an inquiry as to conferences with Emtman but with "anyone else" thus clearly including Callahan if the conversations were had between Bryson and Callahan. It will also be noted that the witness directly referred to Callahan in his answer to Q24, and that such reference to Callahan was not in any way volunteered but was in a proper way responsive to Q24.

The cross examination of Bryson which developed Bryson's conferences with Callahan, was entirely proper.

It should be noted, also, that the redirect examination of this witness (R. 443) directly referred to this subject matter and made the witness respondents' witness on this point.

Again, Bryson (Qs33-34, R. 431) was asked on direct whether or not gravity distribution of concrete "in any way—new or old—was done on that job [the Majestic Theatre] prior to January 1, 1908" and his reply, in part, was

"It might have been put in by gravity in the basement, but when it comes to using the boom and the swivel and the pipe suspended from the tower that has a vertical [horizontal XQ69] movement about the mixer, that is the first place we used it—on the Majestic Theatre—that is gravity system also,"

and that this was "about the last of December, 1907, or the early part of January, 1908" (Q35). Surely petitioners had the right, by way of cross examination, to develop all the facts relative to the structure referred to in these

entries, and the cross examination developed the fact that Callahan was responsible for the production of this apparatus.

Whether Bryson, on this point, was respondents' witness or petitioners' witness, his testimony fully corroborates Callahan as to the disclosure by Callahan of the invention in issue, during the early conferences, in November and December, 1907, which led up to Callahan's employment on the Majestic Theatre job.

Callahan went to work on this job the day after Christmas, 1907. He was not sure as to whether the tower and hoisting apparatus was in position at that time.

But it may be assumed that there was already in place a tower, hoisting bucket and hopper, and mixer at the bottom of the tower, because that sort of an apparatus was in common use at that time, the concrete, in a comparatively dry mix, being delivered from the hopper to wheelbarrows and by them distributed throughout the desired floor levels.

Callahan began immediately to put his ideas into practice. He had a pit dug on the south side of the building about half-way back and erected the tower in the pit so that the bucket could come low enough to receive material readily from the mixer (R. 69, Q9); equipped the tower with *a hopper*; had some galvanized iron pipe made, preparing some rough sketches which were not saved; arranged the hopper at a considerable height above the level of the point of deposit (R. 70, Q10); prepared *a receiving pan* to bridge the gap between the hopper and the inner end of the pipe, swiveled a "*boom pole*" on the tower (Q11); supported the outer end of this boom pole by block and tackle from the tower, *thus making a swinging boom entirely supported by the tower*, and serving as a support to carry *the chute*. He also provided a gate in the hopper so that the concrete could be controlled in its flow from the hopper to the pipe (Q12).

At the outer end of the boom supported pipe, there was an eighth bend which delivered to a swiveled "receiving pan" (Q5).

This apparatus was put into use about the first of January, 1908 (Callahan Q13). The first pipe was only four inches in diameter and was found to be too small, whereupon pipes of successively larger sizes were tried within the course of a few days until a pipe about *seven inches* in diameter was tried and found to be *entirely satisfactory*.

At this time the work had reached the second story level and consequently Callahan carried his tower up much higher than the common practice of that time would require in order that he could raise his hopper high enough to get the necessary gravity flow. As the work progressed the height of the tower was increased and the hopper, the boom apparatus, chute, etc., *were raised from time to time as the work progressed*. All of the concrete from the second floor up *to the roof slab above the eighth floor* was handled by this apparatus and the operation was entirely successful.

So far as Callahan knew, the thought of mixing a concrete mixture very wet so that it would *readily* flow through the chutes, was original with him. This record shows, however, that this was a matter which had reached the minds of many in various parts of the country, prior to Callahan's activities at Los Angeles, but that fact in no way detracts from the value of the *apparatus* which Callahan provided for handling such concrete, and all that respondents say about the controversies, among engineers, as to the propriety of using a wet mix or a dry mix is, we think, wholly beside the point.

Callahan is thoroughly corroborated as to the character of the apparatus which he installed on the Majestic Theatre job and as to the time when it was installed. Bryson

testifies definitely and positively that Callahan had charge of the development of this particular apparatus on the Majestic Theatre job under instructions from Bryson (XQ65, R. 435; RdQ160, 167 to 176, R. 445-7). Bryson also says that prior to Callahan's disclosure and development Emtman had never described to him any apparatus approaching the Majestic Theatre apparatus (XQ98a, etc., R. 438).

No drawings were made of this apparatus and the few sketches which Callahan made were not preserved. This is not at all surprising because a skilled mechanic like Callahan would have no difficulty at all in building an apparatus of the kind without the use of drawings.

Respondents' witness, Parker, was the engineer, under the architect, in charge of the Majestic Theatre job and he took some progress photographs of the work (Defendants' Exhibit 44).

Respondents dwell upon the fact that no one of these photographs shows the tower, hopper and boom, and that no photographs were taken by Callahan. These facts, however, do not justify their assertion that the Parker photographs are not corroborative of the Callahan testimony. Parker was interested in the progress and completion of the building no matter what apparatus was used. Callahan was a poor workman who can hardly be chargeable with the duty of obtaining a camera and making photographs. The Engstrum Company was interested in building progress and would have no difficulty in reproducing any particular piece of apparatus and, of course, this particular apparatus at that time was rather crude.

Parker says that Exhibit 44D shows a tower (Q189, R. 449); that other photographs were taken but that he is unable to find them (XQs194-5, R. 450).

He says also that

"The concrete is [was] dumped from the mixer into a concrete hoist, which runs up the tower to hopper and then from the hopper into a receiving chamber or device, that in turn, spouts it into the pipe." (XQ198, R. 450).

The tower was carried up higher than the common practice and the hopper set "very much higher than was usual for the wheelbarrow method." (XQ205, R. 451.) Parker, referring to the pipe, says that

"At the tower it was supported by their block and tackle and rope they used to pull lumber up \* \* \*." (XQ201.)

There was a pan-like affair, the details of which were not clearly remembered (XQ211) which delivered from the hopper to the boom supported pipe.

Parker was not very clear as to just how the pipe was supported but he says:

"It was all open space out in front of tower to balcony, and in coming that far it would be supported by maybe one or two [guy wires from the tower] I don't really remember." (XQ214.)

The first pipe used was too small (XQ218) but the substituted larger pipe was all right (XQ219).

Parker recalls that at times it was necessary for a man to "climb out on the pipe to knock the concrete loose" and that a brace pivoted to the tower and suspended at its outer end by a guy wire from the top of the tower "was the only means by which it [the long span of pipe] could be supported." (QX223.)

Parker remembers Callahan as one of the "straw bosses" on the job and that while Emtman was superintendent of the job, he (Emtman) was down there on the

work only "off and on until later when they put him on another job where he was in charge continuously." (Q187.)

Respondents say that Emtman was naturally the man to suggest the apparatus under discussion, but at no point in his deposition does Emtman make such a claim and he says that he was *only on the job occasionally* (Emtman Qs56-72, R. 507).

Parker recalls that prior to the installation of this apparatus the concrete was a mixture which had to be tamped or puddled (XQ235, R. 455) and delivered by wheelbarrows but that when this apparatus was installed a wetter mixture was used which at first excited his fears, but he found that the apparatus worked very much beyond his expectations (XQ226).

About a week before Christmas, 1907, somebody connected with the Engstrum organization conferred with Parker to obtain his consent to the use of a wetter mixture (RXQs255-7, R. 457), and he is confident that there was no use of a gravity system before Christmas (RXQ259), but that the gravity apparatus was installed either the last week in 1907 or the first week in 1908 (RXQ261). He does not recall any specific instructions relative to this apparatus, from Mr. Emtman.

While there is nothing in the Parker deposition which directly connects Callahan with the developments at the Majestic job yet, nevertheless, the Parker testimony corroborates Callahan and Bryson because he recalls that Callahan was on the job, recalls, in a general way, the character of the apparatus, and the time when it was installed, and his recollection on these points fits in with the testimony of Callahan and Bryson on the same points.

In open court Frederick E. Engstrum, vice-president, secretary and treasurer of petitioner, Concrete Appliances

Company, testified that the apparatus used in fabricating the Majestic Theatre after it had progressed part way comprised a tower, hopper, hoist and boom supported pipe, the tower being some fifteen feet from the south side at the center of the building.

"The first section of the chute was supported at the intake below the hopper with a—I don't know what material—either a wire or a cable, and by cables or wire under the boom." (Q16, R. 589.)

He further testified that this apparatus was installed early in 1908 *and that Lee Callahan was the designer and originator.*

To offset this positive testimony as to the existence and character of the apparatus on the Majestic Theatre job, respondents offer the *negative* testimony of several witnesses.

Emtman, a rival patentee to whom we shall refer later, contented himself, by replying, to many leading questions, "I do not remember." Nowhere in his deposition does he assert that he had anything whatever to do with the particular apparatus under discussion at the Majestic Theatre. While he was general superintendent for the Engstrum Company, he only saw the progress of the Majestic job "part of the time" (Q18, R. 502), and does not remember ever having given any directions or advice as to the Majestic job.

He says, however, that an apparatus like that shown in the Callahan patent, Fig. 1, was used in connection with the construction of the Majestic Theatre Building (Qs55-57, R. 506); that he was only there two or three times (Q58); and that he didn't have anything to do with ordering or designing that apparatus because he was "elsewhere" (Q61) and was on "some other job" (Q62).

There is nothing in the Emtman testimony to tend, even by the "shade of a shadow" to prove that Emtman was the inventor of the Majestic apparatus, or to disprove that Callahan was the inventor. It does prove, however, that on that apparatus there was a tower, hoisting bucket, hopper and distributing pipe (Q57).

The *ex parte* affidavit of Emtman in the Interference proceedings is not proof or disproof.

Respondents' witness Blake stated that he saw the Majestic Theatre building under process of fabrication in February or March, 1908 (Q14, R. 405) and saw the Timken building in San Diego, to which reference will be made later, in the summer of 1908, and he states that he *did not remember* having seen anything in connection with either building in the nature of a concrete distributing apparatus different from what was customarily used at that period (Q15).

Blake was not interested, at the time of his visit to the Majestic Building, in special apparatus and did not pay any particular attention to it. At the time of that visit he was seeking information as to "time of delivery of materials, means of securing materials, labor and general working construction conditions, in and around Los Angeles" (XQs88-89, R. 412).

He did not go above the ground floor and there is nothing to indicate that he made any examination of the exterior of the building.

Respondents urge strongly that there was some sort of special concrete handling apparatus on the Majestic job and that Emtman was responsible for it, yet in the same breath they urge that Blake, because he says he *didn't see* any special apparatus on the Majestic job, proves that Callahan had no such special apparatus on the job.

Blake was a peculiarly blind and unobservant observer.

He says that the Majestic Theatre was a steel frame work, whereas actually it was a reinforced concrete construction with no steel frame work, as is clearly shown by appellees' exhibits 44C and 44D.

Again, respondents admit the existence of Callahan apparatus on the Timken Building in San Diego in the summer of 1908, as shown by petitioners' exhibit C, and yet Blake, when he visited this Timken Building, failed to observe this apparatus.

Testimony of such a witness that he did not see this, that or the other thing is valueless.

The fact that this unobservant witness up to 1912 had neither seen nor heard of petitioners' apparatus and that at one time he had a conference with Mr. Engstrum, Sr., interrupting him in another conference and asking questions about a totally different subject-matter, is wholly immaterial.

Luther M. Hill was another witness on behalf of respondents. During the time of the building of the Majestic Theatre, Hill was an estimator and assistant superintendent for the Alta Planing Mill Company of Los Angeles. There is nothing to indicate in his testimony that during *that* period there was anything in his work which would cause him to pay especial attention to reinforced concrete building construction.

During the erection of this building he passed it night and morning on his way to and from work and says that he watched its construction. He says that his interest centered in the system being used to distribute concrete because it was new to him and seemed to have merits. He noticed the hopper elevated well above the place of deposit of the concrete and that the concrete was conveyed by gravity through a pipe. He thinks that this pipe was supported by scaffolding and tripods, in order that it might be accessible from scaffolding in order that the men

might shake it (Q9, R. 519), and at that time he knew of no other device for performing such labor, and that he *does not remember* having seen a boom used in connection with the spout.

It is to be noted that Hill does not make any positive statement that there was *not* any boom, but merely that he does not remember it. Such a statement, even from a careful and intelligent observer, is not sufficient to offset the positive statements of Callahan, Bryson and Parker that the spout of the apparatus *was* supported from the tower by a boom, and Parker, as already noted, stated that the spout was supported from the tower in order that workmen might get out on the spout and loosen the concrete.

Swan Johnson was another witness examined by respondents on this point. He was working for the Engstrum Company during the erection of the Majestic Theatre but was not in charge of any of that construction and does not say that he was employed on it. It is evident from his testimony that he was *not* employed on that job. He visited it three or four times "during the beginning of it" and recalls that one Saturday night "during the beginning of it" he met Mr. Engstrum on the job and that Mr. Engstrum was mad because the boys were using "too much lumber building towers and trestles for running concrete there, and that the trestles were for supporting pipes in certain places."

There is nothing in this deposition which in any way controverts, or brings into question, any of the positive and direct statements of Callahan, Bryson and Parker. There is nothing in the Johnson deposition to prove that there was an "excess of trestles" as asserted by respondents. Trestles might be used for many purposes in a building of this sort. It should be remembered also that Johnson was only a visitor on this job "at the beginning"

and his entire observations might have been prior to Callahan's appearance, the building at that time having reached the second story in the front part, and the work on the amphitheatre not having progressed to a point where the Callahan apparatus was used. It should also be remembered that the alleged conversation was with the senior Engstrum, deceased at the time the deposition was taken, and therefore not rebuttable.

C. W. Ellis was examined, after the trial, under leave of court to submit the deposition in support of a motion for leave to take surrebuttal testimony with respect to the alleged "prior use in San Francisco in 1906 and '07."

Examination of this witness as to other matters was, therefore, clearly improper and objection was entered thereto. The lower Court, however, admitted the deposition except as to all hearsay, which was stricken out.

Ellis testified that the Callahan patent in suit, and the Emtman patent 948723, which will be referred to later, covered the apparatus sold and used by the Concrete Appliances Company but did not cover it in detail (Q28, R. 562); and that, ignoring the details, the Emtman patent illustrated the apparatus commercially used by the Concrete Appliances Company, and that the structure shown in the Callahan patent was not commercially used.

In the first place this testimony is opinion evidence and there is nothing in it from which the Court can draw a conclusion as to the particular constructions referred to.

In the next place there is nothing in the deposition controverting the direct testimony of Callahan, Bryson and Parker as to the character of apparatus which was actually and successfully used in connection with the Majestic Theatre job.

Finally, respondents offer the evidence of K. O. Wetzel who was superintendent at the iron works and machine department of the Engstrum Company in 1908, but was

not connected with the company during the period of construction of the Majestic Theatre Building (Q20, R. 516).

He visited the Majestic Building, during its construction, in search of business.

There is not a word of evidence from Wetzel relative to the apparatus used on the Majestic job.

We have then the direct and positive assertion by Callahan that it was he who conceived and produced the apparatus used in fabricating the Majestic Building from the second story up, including the major portion of the floor of the amphitheatre; and that this apparatus comprised a tower, a hoisting bucket, a vertically adjustable hopper on the tower, a chute projecting laterally from the tower and arranged at its inner end to receive the discharge from the hopper, and a boom, comprising an outwardly projecting boom arm and a suspension line from the tower to the outer end of the boom, the chute being supported and carried by this boom and delivering to a distributing pipe or pan associated with the outboard end of the boom-supported pipe, and the chute and boom being vertically adjustable. We have the direct and positive statements of Bryson that Callahan disclosed this apparatus to him and then put it into operation on the Majestic Theatre job. We have the direct statement of Engstrum that Callahan was the designer and producer of this apparatus and that it was used on the Majestic job, and we have the testimony of Parker that such an apparatus was used on that job. Against this there is not a single word of definite and positive testimony.

During the time that the Majestic Theatre was progressing Callahan made a sketch or drawing embodying various improvements in details of construction (petitioners' exhibit B) and he remained on the job until the concrete

was all poured sometime during the summer of 1908 (Q41, R. 73), probably about the latter part of July.

About the middle of August, 1908, Callahan was given charge of the construction of the Timken Building in San Diego, California (Q43), and there erected the apparatus which is shown in petitioners' exhibits B and C, this apparatus being used in connection with the foundation of the Timken Building beginning in August, 1908, and continuing through the erection of the building.

An examination of Exhibit C discloses the precise structure illustrated in Fig. 1 of the Callahan patent.

Blake says that he saw the Timken Building in the summer of 1908 and did not see the special concrete distributing apparatus. In view of the fact that this building was not begun until August, 1908, it would seem that probably all that Blake saw was some early stages of operation or, more probably still, never saw the building at all.

He says that he has "no recollection of the apparatus that was used" (Q16, R. 406) on the Timken Building.

Bryson says (XQ104 *et seq.*, R. 439) that after Callahan had been on the Majestic job six or seven months he was put in charge of the Timken Building in San Diego and there used a "gravity system in a more complete state," comprising "a tower, hopper, mixer, pan, chute, pipe and what might be termed an arm or boom" supporting the pipe and supported from the tower by a cable, this apparatus being used on the Timken job throughout the entire construction.

In view of the striking similarity between the apparatus shown in appellants' exhibit C and the drawings of the patent in suit it is thought that no additional corroboration of Callahan's testimony as to the character and use of this apparatus on the Timken Building is needed.

Callahan's testimony corroborated by Bryson, that the Timken Building was started in the latter part of 1908, and completed in 1909 is not controverted.

A number of other equipments were produced and put into use under Callahan's direction, subsequent to the filing of an application for the patent in suit and an effort was made by Concrete Appliances Company to commercialize the invention by way of royalty for use, first at the rate of ten cents per cubic yard of concrete handled, and later at a lower rate. This method of commercializing the invention proved to be a commercial mistake. The devices suggested by or authorized by the patent owners proved, in some instances, to be structurally weak and to contain the usual "bugs" of new apparatus and respondents attempt to decry the invention because of these facts.

Respondents' own proof shows, however, that the invention was commercialized, to some extent, in a satisfactory manner, and it is not denied by them that the combination defined by the claims in suit has been commercialized to a very large extent by petitioner Insley.

*The apparatus used on the Majestic Theatre job fully performed its function and the concrete was distributed thereby at a greatly reduced cost and in an entirely satisfactory manner. The same is true of the apparatus used on the Timken Building.*

*The effective date of the Callahan invention, therefore, as to conception and disclosure is the middle of December, 1907, with reduction to practice by the week of January 1, 1908. Any alleged anticipatory art must, therefore, antedate these dates, in order to be effective.*

## III.

The alleged prior uses of the plant of the patent were uses of parts or incomplete combinations only, which fell short of the complete combination of the patent.

None of them produced a contractor's plant adjustable to all the varied conditions of building construction. They consisted at best of apparatus designed for a particular job and did not result in the production of a plant, like that of the patent, usable on all ordinary jobs. Nor were they constructed and arranged to be adjustable to the entire building area and to rise with the building from floor to floor.

These alleged prior uses, arranged chronologically, are the following:

*The Ingalls Building, 1902.*

This consisted merely according to the respondents' principal witness A. E. Culp (R. 271), of the use of a chuting or spouting system, the concrete being elevated in a tower hoist and discharge in a hopper, *on the second floor only* of the building. All the rest of the concrete was distributed by wheelbarrows (*id.*, Q12), which was the method still in use at the time of Callahan's invention. The chutes were supported entirely by trestles, and the hopper was supported by a framework on the forms for the second floor. This is shown in Respondents' Exhibit 6.

*There was no boom, and no receiving device or anything else supported on the tower or adjustable thereon.* It lacked, therefore, the essentials of the patented apparatus.

The testimony of the other witnesses on this use (see

Mensch, Q5, p. 144 and Botsung, R. 277), adds nothing to the testimony of Culp.

Furthermore the apparatus was an abandoned experiment, was discarded after it was used on the second floor of the building (Q63, R. 274) and was not used again.

A significant fact, however, is that on the Masonic job at Toledo in 1903 on which the witness Mensch, an able engineer, was employed, concrete which was "semi-liquid," so that it could be "poured" into the forms was used, yet this engineer never conceived the idea of using a plant like that of the patent (Mensch R. 147).

#### *San Francisco use, 1906.*

The evidence in support of this use is conflicting and entirely unsatisfactory, and, like much of the evidence relating to the other prior uses, falls far short of the degree of certainty as to date and as to the nature of the apparatus used required by the well established rule.

*Delaski Co. v. Fiske Co.*, 203 F. R., 986, 993—and cases cited.

Prior to the final hearing in the District Court respondents took three depositions in support of this use, namely those of Horton, Brown and Ayer (R. 527-556), in an attempt to show that an apparatus like that shown in Respondents' Exhibit 61 (a mere memory sketch made after a lapse of 14 years) was used by the Healy-Tibbetts Construction Company on piers 42 and 44 of the San Francisco waterfront.

At the hearing, petitioners' witnesses Engstrum, Ginsburg and Insley discredited this testimony, and the respondents thereupon obtained leave to take additional testimony. Thereupon Horton and Ayer only—although other witnesses were noticed—were re-examined, and in reply petitioners' witnesses Kebby and Tibbetts (R. 597-610) were examined.

Horton in his original deposition (R. 527-532) was quite sure that the apparatus used was like that shown in the sketch, Exhibit 61, but when recalled (R. 613-621), after further thought, and a discussion of the matter with others who were better informed than he, he was by no means sure of it. Horton was an "inside" man and not a mechanic, and evidently is not testifying from his own knowledge.

Ayer, however, when re-examined reiterated his testimony that the apparatus of 1906 was like Exhibit 61.

Now Exhibit 61 was not only discredited by petitioners' witnesses Ginsburg and Engstrum (R. 582-594) who had first hand knowledge of the apparatus used, *but is shown by the testimony of Insley (R. 596) to illustrate an inoperative structure.*

Furthermore, petitioners' witness Kebby (R. 597-607), who was the inspector for the Board of Harbor Commissioners of San Francisco on a near-by pier, made some photographs of similar apparatus used (Exhibits O, P and Q) and these photographs discredit the sketch and testimony of Horton and Ayer. He describes the apparatus, and his testimony together with the photographs, taken early in 1909 and about a year later, shows that the apparatus actually used was not constructed and did not operate as respondents' witness claimed. The concrete used was a very dry mix, and the conduit was a *substantially vertical pipe*, and no swinging boom was used.

Exhibit O clearly shows that, in the distribution of the concrete over an extended horizontal area, *there was no attempt to chute the concrete*, but, instead, the substantially vertical pipe *D* delivered into a fixed hopper on the platform and the concrete was delivered from that hopper into buggies *F* (Exhibit O) and trundled to the desired points of deposit.

Petitioners' witness Tibbetts was the Tibbetts of the Healy-Tibbetts Construction Company, the concern that used the apparatus and was the active construction manager on the work in question. He says positively that all the concrete on piers 42 and 44 *was distributed by buggies* from the mixer on the bulkhead, and that no barge-tower chuting apparatus was used. He also identifies Exhibit O.

He states that the apparatus was used on pier 38 and was not used on the earlier piers 42 and 44. He further states (Q12, R. 608) that this apparatus did not antedate the photograph, Exhibit O of May 25, 1909, by more than thirty days.

The testimony of Ellis does not strengthen respondents' proofs. He merely says (Qs 18-27, R. 561-562) the apparatus used embodied certain "general features" (Q20). There is nothing in his testimony that conflicts with the testimony of Kebby and Tibbetts that the apparatus was not actually used until 1909. Ellis says he took a photograph of the structure (Q21) but does not produce it. He is also contradictory (see Qs 23 and 24).

The answer to the testimony of Mr. Ellis is found in the fact that respondents' witnesses agree that the apparatus which was used on pier 38 in 1909 was exactly the same as the apparatus which they claimed was previously used on piers 42 and 44.

Furthermore the apparatus said to have been used in 1906 at San Francisco does not anticipate, and does not perform the functions of the apparatus of the patent, although it certainly would have been used to perform such functions—in view of the great need for haste in reconstruction after the San Francisco disaster—had it been capable of such use.

By reference to Exhibits O, P and Q, it will be seen that there was no boom carrying the conduit, and nothing

but a temporary strut or prop which could not swing up and down with the chute, and had only a very limited lateral sway. There was no vertical adjustment of chute, hopper or strut, and no means for supporting extension chutes. *There was therefore nothing in this apparatus which made it adjustable to different heights of building operations, or to cover any extended horizontal area.* The only reasonable conclusion that can be reached in this matter is that apparatus of the kind in question was not used in San Francisco until after the patentee Callahan produced it successfully, used it through 1908, and filed his application for patent for it in January, 1909.

*The Webber Dam Job, 1906.*

This apparatus is shown in Appellants' Exhibits 54, 55 and 56. The entire job was done at a level below the ground, where the mixer was situated. The engineers found it necessary to build a long trestle to obtain lateral distribution from the mixer, and to provide on this trestle hoppers at intervals with substantially fixed chutes. The chutes were of the ordinary grain spout flexible type and the sections were fastened together by means of lugs and chain (Fargo, Q20, R. 496). There were two suspension wires at each joint, and the main suspension wires had to be released from the trestle in order to move the chute laterally (*id.*, XQ43, R. 499).

This apparatus had no boom carrying the chute, or for other purpose, no vertical adjustment of chutes, hoppers or boom, and no provision for lateral movement, and therefore lacked several of the vital elements of the patented apparatus.

*The Smith Lynnhaven Job, 1906.*

The apparatus used on this job was produced by Arthur L. Smith, who is the patentee of the Smith Patent No. 948,796 of February 8, 1910 (R. 161), granted on an

application filed February 23, 1909, *more than two years after* this alleged prior use by Smith. Therefore, when Smith swore in his patent application that the invention *had not been used more than two years* prior to his application he presumably swore to the truth—which precludes this alleged prior use in 1906. Furthermore, Smith's application and the application for the patent in suit were in interference (Exhibit 63, R. 638) *and the claims here involved were awarded to Callahan*, Smith receiving only claims for a small improvement consisting of a second distributing chute swiveled to and beneath the outer end of the first chute (Claims, R. 168).

Smith testifies (Qs9-32, R. 217-219) that he used on the construction of the Lynnhaven Hotel at Norfolk, Va., in 1906, an apparatus like that shown in Defendants' Exhibit 20, in which there was an initial spout 4 pivoted to the hopper and supported at its outer end by block and tackle running back to the top of the tower, so supported that it could be swung horizontally.

While this apparatus was a mere temporary device at most, and lacked the boom chute arrangement and vertical adjustment features of the patent, its construction and operation are not sufficiently established.

The principal corroborating witness is T. A. Tatterson, who was not on the job at the time of the alleged use (XQs162-3), because he left in September, 1906, before the fourth floor was started, and returned in February, 1907, when they were working on the roof (*id.*), and the chuting—whatever it was—was used only from the fourth to seventh floors, as Smith testifies (Q32, R. 219).

Tatterson also says that the same apparatus was transferred from the Lynnhaven to the Vinery job (R. 263), but Smith says that the spouts on the Vinery job were supported on trestles (Qs65 and 66, R. 222).

Thornton, another witness, says that Tatterson was

really rarely ever on the job (Q77, R. 37), and as he was merely a timekeeper this is no doubt true.

Preson, another witness called to corroborate Smith, who inspected the job for the architects, says "that one or possibly two wooden troughs were constructed and placed on benches or saw horses "for the distribution of concrete over a restricted area where wheelbarrows could not be used (Q5, R. 239). He merely says that Exhibit 20 corresponds to the apparatus used by Smith "in a general way" (Q18, R. 240). He also says that the sketch, Exhibit E, corresponds "in a general way" (Q18 and 30) and the sketch shows an apparatus which does not include any chute sections at all. He draws no distinctions between the two constructions, and, therefore, does not identify either one or the other. His recollection as to details of the apparatus, as he admits is "rather indistinct" (XQs60-62, R. 244).

As counterproof, appellants present the depositions of Charles Copper (R. 20-25), William T. Baker (R. 25-31), W. N. Thornton (R. 31-37), Roland Brinkley (R. 37), F. M. Glines (R. 39-43), Carter Gray (R. 43-46), Andrew J. Kerns (R. 46-57) and J. S. Goldback (R. 58-66).

These witnesses testified very positively to the following facts among others:

That the concrete was distributed by means of wheelbarrows from the hoist hopper (Cooper, Q10, R. 20); that there was only a short chute for conducting the concrete from the hopper to the wheelbarrows; that the hopper was only three or four feet from the floor (Baker, Q34, and Cooper Q20); that the sketch made by Kerns (Exhibit E) correctly shows the apparatus used (Kerns, Q28, R. 49).

These witnesses were all connected with the job, at the time when Smith says the apparatus was used, and Kerns was the foreman in charge of the pouring of the concrete, so that if any such apparatus had been used, they would

have known of it. They all remember the tower, hoist, bucket and hopper, but saw no suspended chutes used.

*American Theatre Job, 1907.*

On the construction of this theatre (a steel frame structure), an apparatus consisting of a tower, a hoist bucket, a hopper supported in part by the tower and in part by the steel frame work, and a series of chutes was used. The chutes were supported by cables or trestles *from the steel framework*. The only visible evidence offered in connection with this use is found in a memory sketch made by the witness Goebel (Exhibit 37), which is merely an alleged idea conceived by that witness. As this American Theatre apparatus concededly lacked the boom, chutes carried by boom, vertically adjustable hopper and chute and the vertically and laterally swinging features of the patent, it need not be considered further.

*The Gerhard-Clark School, 1908-1909.*

The witness Gerhard first testified that this school was built in St. Louis by him during 1908 and 1909 (Q7, R. 335), but on further investigation he finds it was built during 1906. The distributing apparatus consisted of a tower, a hoisting bucket, a hopper and trussed distributing chute swiveled to the hopper and supported at its outer end by block and tackle from the tower, according to Gerhard. He says it was of the same general character as that shown in Exhibit 31 (Q13) except that the auxiliary support 5 was not used.

Edward Anderson for the petitioners, who worked on the job, fixes the date as 1906 to 1907, and describes the apparatus used as an ordinary wheelbarrow elevator (Q26, R. 105). He says that throughout the job the concrete was placed by wheelbarrows (Q9). He states positively that no such apparatus as that shown in Exhibit 31 was used on the Clark job.

Hooper Anderson, his son, corroborates his father in every particular (R. 107-109).

William B. Ittner (R. 109) whose testimony was stipulated, was the architect of the Clark school and visited the operations frequently. He recollects no such apparatus, and would have recollected it had it been used.

P. J. Curran (R. 110) testifies substantially to the same effect.

It is evident that Gerhard, who is uncorroborated, was mistaken even as to the use of parts of the plant of the patent in suit.

*Franklin School Job, 1910.*

Gerhard, the same witness who testified to the Clark School apparatus (Stip., R. 556) testifies that the photograph, Exhibit 31, was taken May 7, 1910, but as this was after the patent was granted, it has no relevancy.

*Great Lakes Dredge & Dock Developments, 1906-1909.*

Beginning in the fall of 1906, at Gary, Indiana, the Great Lakes Dredge & Dock Company used an apparatus consisting of a flat car, a concrete mixer mounted on the car, and possibly a boom having a slight angular movement, although this is questioned. A chute section supported in part by the boom received the concrete from a wooden trough. But as there was no vertical adjustment of anything and very little lateral movement, and the chutes were supported on the coffer-dam forms, this need not be considered. The apparatus is illustrated at the left of Respondents' Exhibit 17A and in the Cameron sketch, which omits the wooden trough which would interfere with the free swing of the boom-supported chute. The support of the outer end of the chute on the coffer-dam is also admitted. (See Depositions of Alderman, Creutz, Patterson, *et al.*, R. 281, *et seq.*).

In the Spring of 1907, the apparatus shown in Exhibits 17A and 17K were shifted alongside the intake ditch and used in the condition shown in the Exhibit 17M. This apparatus had a very limited lateral swing, and was not adjustable to reach various lateral points. It was not vertically adjustable, and there was no chute carried by the boom, although the outer chute was hung from the boom. It was a crude apparatus designed for the purpose of chuting concrete into an excavation and was not usable for building constructions, except possibly for one floor of a building, and then only if supplemented by wheelbarrows or other means to carry the concrete from the chute to points laterally removed therefrom. The chute extended from a short fixed chute on the platform under the mixer, and a limited lateral movement of its lower end only could be obtained, by twisting the joint of the chutes, as shown in Exhibit 17M. There was a total absence of any idea of vertical adjustability of the boom, or of the chute and of any provision for using the apparatus on different levels.

Portions 17B to 17J inclusive of Respondents' Exhibit 17 all relate to structures long subsequent to the Callahan invention. Exhibit 17B, for instance, is dated December 18, 1909. There is some testimony by Cameron to indicate that the structure was started the preceding year, but no proof as to its condition, so far as the boom supported chute is concerned, prior to December 18, 1909, which is long subsequent. In this apparatus there is no vertical adjustability of the boom or the boom supported chute but, instead, the chute is arranged to receive the direct discharge from the mixer. There is, therefore, a total absence of any hoisting mechanism.

It should also be noted that there is no corroboration of Cameron as to the date of construction of this apparatus. The only supporting proof is the photograph (17B) which is dated December 18, 1909.

The Great Lakes Dredge and Dock Company did ultimately, long subsequent to the date of the Callahan invention, produce an apparatus which responds to the claims in suit but this does not prove either anticipation of the Callahan invention or lack of invention.

The Great Lakes Dredge and Dock Company was, during this period, a very large concern, doing an enormous business throughout the eastern part of the country and fabricating large works (Williams Qs7 and 8, R. 570). They must have had under way during this period, prior to Callahan's time, concrete constructions in connection with which apparatus defined by the claims in suit would have been exceedingly valuable. Such apparatus, when finally developed by the company, after Callahan's time, did prove to be very valuable.

The company was constantly exercising its very best efforts to produce improved mechanism in order to increase efficiency of the organization (Cameron, XQ181-182, R. 212), yet it took this great organization several years to arrive at the Callahan level.

#### *The Tootle-Campbell Building, 1908.*

This apparatus, used sometime during 1908, in St. Joseph, Mo., was subsequent to the construction and use of the Callahan apparatus at the Majestic Theatre Building early in January, 1908, and also was of such a character that it did not realize the improvements of the patent. It had no boom or boom-supported chute, and no equivalent thereof. A cable was run from the top of the tower to a "dead-man" and the chute was suspended from this cable. This of course did not permit the chute to swing, and the chute could be moved laterally only when the supporting cable was attached, an operation involving considerable labor and expense. Such an apparatus is not usable for the purposes of the patented plant.

*St. Louis Coliseum, 1908.*

This use is also subsequent to Callahan's reduction to practice at the Majestic Building early in January, 1908. It was designed by Arthur L. Smith, who claimed to have used an anticipating apparatus at Norfolk, Va., in 1906.

This apparatus (see Exhibit 22), is shown in his patent 948,746, and comprised a tower, apparently initially *erected to the full height* to which it was to extend. The tower supported the hopper which could be, and was, raised from time to time. The chute was swiveled to the hopper and this chute was suspended by block and tackle from a horizontal yard arm pivotally mounted upon a vertical pivot *at the top of the tower*. So far as the testimony shows, this boom *was never moved vertically* but was placed at the top of the full height tower and served as the suspension members for the chute in its various vertical positions. Such suspension members, in the early stages of a job, would be very long and the chutes would be *too easily displaced laterally*. It would be practically impossible to have this peculiar type of tower and boom *grow in height from time to time*. Such possibility of growth is one of the essential characteristics of the Callahan structure.

The Coliseum structure being later than the effective date of the Callahan invention, has no bearing on the present case except as a basis for an assertion that there was no invention involved in the Callahan combination, because several other people in different parts of the country sooner or later thought of a similar combination. If a very great number of ordinary workmen in different parts of the country simultaneously produce similar mechanisms there is some force to such a contention, but *a multi-party interference is a common occurrence in the Patent Office* and the mere fact that several inventors in different parts of the country substantially

simultaneously produce an invention, is never considered indicative of lack of invention.

In this apparatus there is certainly no boom carrying the chute as in the patent and respondents' structure. The yard arm at the top of the mast or tower is simply a convenient means for attaching long suspension cables by which the chute is supported. Nor is there any vertical or horizontal movement or vertical adjustment of this yard arm, all of which are called for by the claims of the patent. Therefore, even if it were a prior structure it would not fully anticipate.

#### GRAIN ELEVATOR SPOUTING.

The problems which confronted Callahan, in connection with a concrete structure which was to grow under the operation of the apparatus in suit, were quite different from the problems which exist in the handling of grain.

"The same type or class of device finds different environment as it has different application; the application in instance will present problems that do not exist elsewhere, and the solution of which may be invention just because of the environment existing in that particular field. This is simple enough when observed, but Hoxie was the first one to see both that it was a desirable thing to do and how to do it; and we have no doubt that his combined thinking and acting in these respects amounted to invention above and beyond the mere details of construction." *Jackson Fence Co. v Peerless*, (c. c. a. 6th) 228 Fed., 691-5.

The Court of Appeals of the Sixth Circuit, in the Meinken case, fully considered this grain elevator spouting defense against the Callahan patent and threw it out as relating to a non-analogous art. Respondents in the present case say that the evidence here is different because some

of the witnesses have testified that when they came to spout concrete they used grain elevator spouting, but the record in this respect supports petitioners' contentions because, these witnesses, who testified about their familiarity with grain elevator spouting failed to produce the specific combination which forms the subject matter of the claims in suit. All they saw, in the grain elevator art, was some spouting. *What they didn't see, for years, was that it was desirable to mount a boom adjustably on a tower and in conjunction with the adjustable hopper also on the tower, so that the spouts would be wholly supported by the tower, through the boom, and could be vertically adjusted to keep in proper relationship with the hopper.*

Of course, many engineers knew of swiveled spouting and vertically fixed booms but, the record clearly shows that in the art to which the patent in suit belongs, engineers and inventors stumbled along without seeing the desirability of making the specific combination of the claims suit until after Callahan had made his invention, tested it out and reduced it to practical form. Respondents are raising the cry of "no invention" with the "*ex post facto* wisdom of the bystander."

The very fact that so many came so near the solution of the problem, without actually solving it, speaks loudly for invention on the part of Callahan.

This record discloses many instances where men highly skilled in the art, such for instance as Mensch, when they approached the problem of distributing concrete over extended horizontal areas at successively increasing heights, failed to produce the exceedingly simple and efficient Callahan combination, in spite of the fact that they were well acquainted with grain elevator spouting and with hoisting booms, and with the various other individual elements which Callahan brought together for the first

time in the complete and efficient combination defined by claim 5.

The prior structures are open to respondents; such constructions can be used in some places, but in its peculiar sphere, the Callahan combination is exceedingly efficient and respondents found that they had to use it. This fact in itself justifies appellants' claims.

#### PRIOR PRINTED PUBLICATIONS.

It is admitted that Callahan was not a pioneer in the chuting of concrete. So far as he knew he was a pioneer, but there is no doubt that the publications presented by appellants show that prior to Callahan's time, there had been considerable discussion among engineers and builders as to characteristics which a concrete mixture should have in order to be chuted and that it was quite common practice to chute concrete, in various conditions of fluidity, through chutes of various kinds and that in some instances swinging arms, fixed vertically and associated with the mixer were provided to support a swinging chute directly associated with the mixer and so arranged as to chute concrete into a hole in the ground. So far as we recall, none of the prior publications makes any disclosure which is materially different from the disclosure in the various structures which have already been discussed.

Respondents say, in discussing the various prior publications, that if a contractor were well informed in 1907 he could hardly have failed to try such an experiment. If this be true, why—in all the mass of respondents' testimony, relating to almost 57 varieties of prior devices—is there no showing of such an "experiment" prior to the Callahan invention? Healy-Tibbitts, in building pier 38 in 1909, did not try such an experiment but distributed all the floor concrete by using buggies.

Exhibit 52 is referred to by respondents with confidence, but as Exhibit 52 is an editorial written *five years after* the issue of the Callahan patent, it is thought that no more need to be said as to it.

The very fact that various publications considerably antedate Callahan, and that chuting of concrete in building operations had been carried on for years without anybody seeing the advantage to be gained by the vertically-adjustable boom-chute arrangement, supports our contention that inventive thought was necessary on the part of Callahan to first produce that combination.

#### PRIOR PATENTS.

While there are many patents offered in the evidence of this case which were not in evidence in the Meinken case, before the Circuit Court of Appeals for the Sixth Circuit, there is no substantial difference and no closer disclosure than was to be found in the prior patents before the court in the Meinken case.

Where a Circuit Court of Appeals, especially of the character of the Circuit Court of Appeals of the Sixth Circuit, has carefully considered prior patents and has decided that the disclosures of said patents are insufficient to anticipate the patent in suit, it would seem to be a waste of time to track over the same ground, especially in view of the fact that respondents did not consider them of sufficient importance to discuss them in detail in presenting their defenses to the lower courts, and the lower courts did not consider them important, except as showing the general state of the art.

It is believed sufficient to say that no one of the prior patents relied upon by the appellees in this suit discloses the combination defined by the claims in suit.

## IV.

It is believed that the patent covers a specific combination of elements not found in form or equivalent in the prior art. The fact that plants embodying that particular combination of elements have gone into general use, and that contractors generally, and the respondents, are using that particular combination—in preference to all others open to them—indicates that it involved invention and accomplished a result not obtained before.

That the apparatus of the patent has great utility and has gone into general use is well established and in fact is not disputed (Thompson, R. 112-114, Insley, R. 119). The Court of Appeals in the Sixth Circuit so found (Opinion, par. 3).

The question is, therefore, one of *invention*, since there are obvious structural differences between the patented apparatus and the apparatus of the prior art and the patent is for a combination of co-operating parts and not an aggregation.

#### PATENTABLE COMBINATION OF OLD ELEMENTS.

It is undoubtedly true that the individual elements of the Callahan invention were old. It is also true that various combinations of two or more but not all, of these elements had been made.

In no single instance, however, was there a prior *complete* combination.

Under such circumstances, and where the complete combination is found to have capacities exceeding the capacities of the earlier art, it has been repeatedly held that a patentable combination has been produced.

“If every element was old, invention would still exist if the combination either produced a new and useful result or effected an old result in a new and materially better way.” *Proudfit Co. v. Kalamazoo*

*Co.*, 230 Fed. 127. See also *Loom Co. v. Higgins*, 105 U. S. 580, 26 L. ed. 1177; *Ferro Concrete Co. v. Concrete Steel Co.*, 206 Fed. 666.

"It is true that each one of these missing elements can be found in some one of the prior patents; but this is not enough to negative invention. If the selection of elements from existing machines into a complete combination has, for the first time, produced from a practical and commercial aspect a new result, invention may be predicated thereon \* \* \*." *Cadillac Co. v. Austin*, 225 Fed. 990 (C. C. A. 6th).

"In many inventions there are two distinct steps: first, the conception of the general result wished for; second, the discovery of the way of obtaining it. In a large majority of cases, perhaps, the first may be obvious to any one interested in a particular art, and it is the second which calls for the exercise of inventive genius. But that is not always so. It may well be that two or more machines, appliances or tools are old and well known. Some day it dawns on someone that, if they are combined, new and useful results will be obtained. It may be that, so soon as the advantages of the combination are understood the means of bringing it about are within the capacity of any fairly skilled mechanic. In a third class of cases inventive genius may be required both in perceiving the combination that is desirable, and in finding out a practical way of making it." *Rosemary Co. v. Halifax Mills*, 257 Fed. 222.

"The fact that each and every element of the combination claimed by Streat was at the date of his patent old and well known is not sufficient to deprive the invention claimed by him of novelty, for most of the inventions of the present day consist of the utilization ad adaptation of mechanical appliances that are themselves old and well known." *American Tobacco Co. v. Streat*, 83 Fed. 703.

"The presumption of invention is not overcome

by the fact that an expert is able to build up the patented device by selecting parts taken from the prior art." *Stead Lens Co. v. Kryptok Co.*, 214 Fed. 376.

Respondents contend, as is quite usual in cases of this kind, where the prior art fails to disclose the specific combination covered by the claims and used by the defendants, that the claimed combination is perfectly obvious in view of what preceded it. There is a great temptation, difficult to avoid, to view the patented developments with the "*ex post facto* wisdom of the bystander" but, the proper rule has been well stated by Judge Mayer in *General Electric Co. v. Alexander et al.*, 277 Fed., 300, that

"It is idle not to recognize that after acquired knowledge is a subtle and subconscious agent of inaccuracy and departure. The phrase 'anyone skilled in the art would have known' how to do then what is known how to do now is the danger signal which admonishes courts to be cautious."

In the present case the record shows that many approached to the ultimate solution attained by Callahan, but Callahan was the first to reach the complete solution and if that particular solution has a distinct place in the art it should be protected. Such protection does not take from the respondents anything which they theretofore possessed but leaves them perfectly free to utilize the prior art structures.

Callahan's advance over the prior art is well summarized in the opinion of the Court of Appeals for the Sixth Circuit (Appendix A) quoted elsewhere in this brief.

Respondents say that Callahan's invention is but "natural evolution."

Mush concrete—fit to be chuted—was known long prior to Callahan, though Callahan thought he was original on this point also.

But, mush concrete having been used as early as 1903, there was a period of more than five years during which the "natural evolution" failed to produce the Callahan combination. Great Lakes Dredge and Dock Company took eight or nine years to do this "natural" evolving and "arrived" long after Callahan.

The line of "natural evolution" is freely open to respondents. No right has been taken away from them. They are free to use any of the old combinations in the old way. But this is not what they want. Instead they wanted to use, and did, use the Callahan invention.

#### THE ALLEGED PRIOR INVENTION BY EMTMAN.

Respondents are contending that Emtman and not Callahan was the inventor of the apparatus which was used in connection with the Majestic Theatre building. So far as we have been able to find, there is no testimony to support this contention. All of respondents' contentions, in this direction are based upon inferences drawn from remote premises. Emtman does not claim invention, except as he may be considered to have claimed it in the *ex parte* affidavit in connection with an interference proceeding when he set up dates which correspond to the Majestic Theatre operations.

Facts of this kind, however, cannot be proved by inference but must be proved beyond reasonable doubt by the testimony of witnesses open to cross examination.

Emtman was called as a witness for respondents. He proved a very unsatisfactory witness, but surely that is no reason for the court to rule that, because of the unsatisfactory character of the testimony, it must be assumed that Emtman was the inventor of the Majestic Theatre apparatus.

Even if Emtman had made the direct claim that he was the inventor of the Majestic Theatre apparatus respond-

ents would not have proved, thereby, that such was the fact. Corroborative evidence would have been necessary on this point. No such corroborative evidence was presented, or even attempted.

The claim, therefore, of prior invention by Emtman, is entirely unsupported.

#### THE EFFECT OF THE INTERFERENCES.

During the pendency of the Callahan application an Interference was declared between said application and an application filed by Arthur L. Smith, which application later developed into the Smith Patent No. 948,746. The issues of said Interference all included the alleged improvement in the apparatus described as "a secondary distributing pipe revolvably mounted beneath the mouth of the first distributing pipe" (count 1), "a second distributing pipe revolvably mounted" (count 2) and "a horizontally rotatable delivery pipe" (count 3).

Callahan conceded priority of invention to Smith *only* of the *particular combinations* defined by these counts. (See pages 104 and 105 of the joint exhibit, Sixth Circuit Court of Appeals record.)

Respondents urge that this concession of priority places Smith's disclosure, as found in his patent No. 948746, in the prior art and that the claims, upon which concession was made, are very broad and dominating.

An examination of the counts of the Interference shows, however, that these contentions are not well founded. It is to be noted that the claims upon which Callahan conceded priority to Smith do not in any way involve or include a vertically adjustable hopper, or a vertically adjustable boom-chute combination, or a hopper carried by the tower, or a chute carried by the tower. Instead, all are directed to a specific combination including *a pair of pivotally connected chutes*, the upper one of which is

associated with an elevating means so as to revolve in a horizontal plane and the lower one of which is revoluble relative to the lower end of the upper chute.

The claims are broad in so far as they are not limited to a vertically adjustable hopper, or a hopper carried by the tower, and are not limited to any particular means or manner of supporting the first chute section on the tower, but they are exceedingly narrow in that they are specifically limited to a construction in which there is a *second* chute section which is *revolvably connected* with the first chute section.

The precise question was carefully considered by the Court of Appeals of the Sixth Circuit and that court said:

"It goes without saying that the Smith patent can get no advantage merely because it has been owned and commercially exploited along with the Callahan patent. Upon this record Smith cannot claim to be the inventor of anything shown by Callahan's application, except as the latter is modified by the later concession of priority. The Callahan patent is not a part of the prior art, in the sense in which that phrase is used with reference only to publications, but the Smith patent, both as to anticipation and as to the presence of invention, must be judged upon the basis of which the earlier Callahan application is a part. It must, therefore, be assumed, as against Smith, that the advance of his claim 1 consisted merely in taking the concrete elevating and distributing apparatus of Callahan and substituting for Callahan's simple discharging conduit, revolving only at the point of attachment to the receiving hopper, the compound discharging conduit consisting of two or more sections revolvably connected with each other." (262 Fed. 960.)

In the case of *Cropp v. Standard* (256 Fed. Rep. 668), the patentee of the patent in suit, in an interference with the defendants' patentee, on claims which included an ele-

ment not invented by him, disclaimed the interference count, and the Court of Appeals for the Seventh Circuit, in answer to the defendants' contention that the disclaimer deprived him of the right to claim the invention broadly and without this element, said (p. 668):

"Indeed the Standard Company does not seriously dispute the legal principle involved in the Reed case, namely, that a claimant of a generic invention does not lose his right by declining to claim some other persons' subsequently devised form."

The "Reed case" referred to was the case of *Reed v. Cropp et al.*, in the same court (239 Fed. Rep. 869), in which the law and the rules of the Patent Office relating to the questions involved were fully discussed and the rule above stated laid down.

A concession of priority or a disclaimer relates only to the particular subject-matter involved, and Callahan's concession of priority related only to the "secondary distributing pipe revolubly mounted beneath the mouth of the first named distributing pipe," or its equivalent (which was the only thing conceded to Smith) which was used in the combinations of the counts.

It is clear, therefore, that all that Callahan conceded to Smith was that Smith was the first to provide the specific revoluble connection between the first and second chute sections, *irrespective of how the chute sections were supported* relative to the hoisting means and hopper. Such a concession, however, did not surrender Callahan's right to be considered as a pioneer in providing the specific combination defined by the claims in suit which combination involves the vertically adjustable hopper and the co-relatively vertically adjustable boom and first chute section *carried by the boom from the tower*, and by means of which *it became possible to also support a second chute section from the tower*, and thus leave the working space

adjacent the tower entirely free from all supporting mechanisms, and yet permit the distribution of concrete throughout the entire area within the radius of the first and second chute sections.

Respondents draw the inference from the Emtman-Callahan Interference and Emtman's concession to Callahan, that Emtman must have been the inventor of the Majestic apparatus because the dates given in his preliminary statement correspond to the dates of that apparatus, while the dates given by Callahan in his preliminary statement correspond to the Timken apparatus at San Diego.

It is believed that this inference is not well founded. It must be remembered that Callahan, when he filed his application for patent, was proceeding independently and was represented by an attorney in Washington, a long way from Los Angeles. Everybody knows that the average inventor has no real conception of the extremely technical character of a preliminary statement. Callahan was unfamiliar with patent matters and it is quite clear that, in making his preliminary statement, he assumed that he was asked to tell about his *perfected* apparatus which he had at the Timken building in San Diego, because that is the apparatus which is specifically illustrated in the patent in suit. Quite naturally, therefore, he might fail to set up the dates of the Majestic operations purely because the Timken building apparatus was illustrated in his application for patent.

On the other hand, as soon as the Interference was declared, Emtman abandoned his claims relating to the Majestic apparatus and conceded them to Callahan. It should be noted in this connection that the claims of the Emtman patent 948,723 are specifically limited to a construction which involve a *mast* rotatably mounted *at the top of the tower*.

Emtman's preliminary statement was made *ex parte*

and, as he was under the impression that he could "get away with it," he may have asserted the Majestic dates. Whether or not Emtman had the Majestic Theater apparatus in mind in his preliminary statement, is purely a matter of inference. He does not specifically refer to the Majestic Theater and, so far as this record shows, the similarity of dates alleged in the Emtman statement and dates of the Majestic Theater job is a mere coincidence. But Emtman's concession of priority to Callahan of the specific subject matter of the claims now in suit in this case, tends to show that Emtman was not the inventor of that construction.

#### ALLEGED INOPERATIVENESS OF CALLAHAN.

Respondents have presented some proofs to the effect that some of the apparatus made under license from the original holder of the Callahan patent, was not successful and that blue prints furnished by the patent owner illustrated apparatus which when built, were tried and found unsatisfactory, and abandoned.

It is admitted by respondents' witnesses, however, that other apparatus licensed by the patent owner operated satisfactorily.

Respondents' proofs also show that the apparatus used by Callahan on the Majestic Theater job in the early part of 1908, and the apparatus used on the Timken job in the latter part of 1908 operated to such a degree of satisfactoriness that the buildings were constructed by the use of the apparatus in an entirely satisfactory manner.

A mere inspection of the patent in suit is convincing that the structure therein disclosed is an operative structure capable of performing the functions for which the apparatus was designed and there is no evidence which in any way fairly criticises this apparatus or proves its inoperativeness.

The mere fact that Callahan's early piping was too small in diameter or that, in the commercial development of the apparatus it was found that open chutes were more satisfactory than closed pipes, is wholly beside the point.

The fact remains that the apparatus disclosed in the patent in suit is capable of successful operation and it is not necessary, under the patent law, that the apparatus disclosed in the patent shall possess the highest degree of efficiency.

It has been repeatedly held, and is, in fact, one of the "fixed laws" relating to patent that, in order that a patent be sustained, it is not necessary that the disclosed structure be capable of the highest degree of efficient operation. *Engineer Co. v. Hotel Astor*, 226 Fed. 783; *Mineral Separation v. Hyde*, 242 U. S. 261, 61 L. ed. 286 (and many other decisions).

#### THE CALLAHAN VANCOUVER TESTIMONY.

There is nothing inconsistent between Callahan's present testimony, and his preliminary statement in the Interference proceedings, and his deposition given in the Vancouver case (which is not properly before the Court).

In the Vancouver case the Callahan Canadian patent (corresponding to the patent here in suit) was sustained as for a patentable combination.

In the Vancouver deposition he was asked as to whom he had "the completed apparatus" and the reply evidently had in mind the perfected form of apparatus which was used by him in connection with the Timken building, and illustrated in considerable detail in his Canadian patent, which was in all substantial respects like the patent here in suit.

So far as the combination defined in the claims in suit is concerned, which does not specifically include the second rotatable chute section, but which merely defines the

fundamental combination by which this second chute section may be wholly supported from the tower, Callahan undoubtedly had this in actual operation in connection with the Majestic building, but, at the time of his examination in the Vancouver case, he evidently thought that the question as to the "completed apparatus" required an answer relating to the Timken apparatus.

Long before the present controversy Emtman had conceded to Callahan priority of invention as to the particular combination which is defined by the claims in suit (see Exhibit 6th C. C. A., pp. 111 and 112).

## V.

**It is respectfully submitted that the decision of the Third Circuit Court of Appeals is erroneous, and that the decision of the Sixth Circuit Court of Appeals should be approved.**

The Circuit Court of Appeals for the Sixth Circuit held that even though the improvements defined by the claims of the patent in suit be regarded as a combination of old elements it was patentable invention to bring these elements together in such a way as to form the plant covered thereby, whereas the Circuit Court of Appeals for the Third Circuit has declared that there was nothing new or patentable in this combination. In both Courts the particular entire combination of elements was not found in the prior art. This is apparent from a reading of the opinions. It is further apparent from the records that certain of these elements were not found in the particular form in which they appear in the patent. The Court in the Third Circuit however, held that this combination was but a natural assemblage of parts, made to meet the conditions and serve the purposes which the patentee had in mind, whereas the Sixth Circuit Court

of Appeals held that invention was required to bring these parts together into a unitary structure or plant. It is contended that the decision of the Sixth Circuit Court was correct and that the decision of the Third Circuit was erroneous.

As we have seen, the claim of the patent taken by the Court of Appeals for the Sixth Circuit as a typical definition of the improvements is claim 5, which is for an apparatus consisting of a combination of the following parts or elements:

1. A tower,
2. A conduit extending laterally therefrom,
3. A suitably supported horizontally-movable boom *carrying the conduit*; said boom being *adjustably connected* with the tower and adapted to be arranged *at various points in the height thereof*,
4. Means for raising plastic material to the point desired in the height of the conduit (tower),
5. Means for receiving plastic material from the raising means and conducting it to the conduit; said receiving and conducting means being *adjustable in the direction of the height of the tower*.

In other words, it calls for an apparatus consisting of (1) a tower, (2) a conduit, (3) a swinging and vertically adjustable boom carrying the conduit, (4) a hoisting bucket or the like, and (5) a vertically movable bin or receptacle communicating with the conduit.

The details of the illustrative embodiment of the improvement claimed are fully described and shown in the specifications of the patent, and need not be here described at length. The patent is not limited to such details of construction (Pat. p. 3, lines 69 to 77).

Concerning this apparatus the Court of Appeals for the Sixth Circuit said (262 Fed. Rep. 961):

"It occurred to Callahan that he could construct a tower, or skeleton elevator shaft, which should originally extend, or which, by successive additions, should be made to extend well above the highest story of the proposed building; that he could attach to this tower, and make *vertically adjustable thereon* a receiving bin or hopper carrying a downwardly inclined and revolubly connected discharge chute, which could be swung about to reach various points on the next lower level to that where the receiving bin was fixed; that this receiving bin and its discharging apparatus could be temporarily fixed, as the building advanced at positions on the tower suitably elevated *above each successive story*; that the mush concrete could be elevated inside the tower to these various fixed positions and there dumped into the receiving bin; and that, in this way the mush concrete could be delivered *in an approximately automatic way throughout the successive floors or levels of a building, no matter how high*. Upon this record, this general thought was wholly novel. It has proved to be of great commercial value."

The Court of Appeals for the Sixth Circuit further said (*Id.*, p. 964):

"Callahan's conception, that this material could be thus treated so as to deliver it from the ground all about the successive several floors of a high building and with practically no manual labor, except that involved in the story by story adjustment of the apparatus, involved, we think, inventive thought of a high order, when accompanied as it was by the devising of suitable apparatus to carry out the thought, which apparatus substantially differed from anything which had ever been constructed for any purpose, although every element was old."

And again, in stating that the apparatus answered the test of the decisions of this Court, and the lower courts, and possessed the requisites of a patentable combination (*Id.*, pp. 965-966) :

"On the other hand, we recall no instance of combinations of old elements which had been held to produce 'a new result' in a patentable sense and which better deserves that commendation than does Callahan's. The *quasi automatic* elevation and distribution of wet concrete under the varying conditions of *progressive* building and *by a single apparatus* was an entire novelty. No one had tried to do it; apparently, no one had thought of it; it was useful in a very high degree; and when we find a new result in this complete and extreme sense accomplished by a confessedly new combination though of known means—we think both the purpose of the patent law and the rightful application of the decisions thereunder require that it should be awarded the merit of invention.

"We have stated our conclusion that the device of the patent is not an aggregation, in the sense that it represents such a mere assembling of old elements as might have been made by the exercise of only ordinary skill. It is at least equally clear that the device is not an aggregation in the more technical sense of the word, but is rather a true combination. It is true that the use of the apparatus involves successive steps, and is at each of its stages under direct or indirect manual control; but in a fair sense the entire operation of elevating and distributing the concrete is a *unitary thing*. *From the time it starts on its journey from the ground to the time it is deposited in the form, its progress might well be automatic.* There is clear distinction between this performance and that of the associated washing and wringing machines, discussed by the Supreme Court in *Grinnell Co. v. Johnson Co.*, 247 U. S. 426, 38 Sup. Ct. 547, 62 L. Ed. 1196."

A pertinent statement in the specification of the patent (p. 3, line 60, *et seq.*) is the following:

"It will also be manifest that as a building is raised the booms and the appurtenances can be raised, and when the apparatus is in use the only manual labor necessary to the successful operation thereof is one man on the platform D, one man to manipulate the lines of the booms, and three men to supply and set materials and tamp walls, etc."

That the combination of parts in the manner specified produced a new article—a universally usable and adjustable gravity concrete distributing plant—and a new result seems indisputable. But the Court of Appeals for the Third Circuit held that this did not involve invention, but was the result of mere bringing together of old parts by the exercise of ordinary skill.

The Court of Appeals for the Third Circuit, however, *did not base its decision on claim 5 of the patent*, which the Court of Appeals for the Sixth Circuit regarded as the best definition of the invention. The decision in the Third Circuit appears to have considered only claim 1, which is the claim quoted in the opinion, and which is *for an incomplete sub-combination*. The Court of Appeals for the Third Circuit in this opinion, said:

"On his apparatus, Callahan was allowed the claims here in question, viz.: 1, 2, 5 and 13, of which the first reads:

"'An apparatus for the purpose described, comprising a tower, a suitably supported horizontally movable boom connected therewith, a conduit carried by the boom, means for raising plastic material to a suitable point in the height of the tower, and means for receiving plastic material from said raising means and conducting the same to said conduit.'

"This is fairly illustrative of the elements of the

other three claims. The elements of the quoted claim are first 'a tower'; second, 'a suitably supported horizontally movable boom connected therewith'; third, 'a conduit carried by the boom'; fourth 'means for raising plastic material to a suitable point in the height of the tower,' and fifth, 'means for receiving plastic material from said raising means and conducting the same to said conduit.'"

The elements of this claim are then compared with the prior art—but without considering the conduit "*carried by the boom*"—and the conclusion reached that the elements of this *incomplete* combination were found in the prior art.

It will be seen therefore that the Court in the Third Circuit, in comparing the apparatus of the patent with the prior art did not consider two of the important features of the apparatus, viz.: (a) the *combination of boom and conduit*, which made the extended suspension of the gravity feeding devices to cover all building areas possible, and (b) and the *vertical adjustability* of the receptacle and the boom which enabled the plant *to rise with the building* to any desired height.

The first element is expressed in claim 1 but does not appear to have been taken into consideration, and the second element is not expressed in claim 1 at all, and also appears to have been overlooked by the Court in comparing claim 1 with claim 5.

The court says, speaking of the tower:

"There was of course nothing new in his element of his elevating tower. That was as old as the elevator art. Making it extensible from story to story involved no more invention than if he had built his tower complete at the start and allowed his building to build up to tower height instead of the tower to the building height."

But it is not the extensibility of the tower that is of such importance (the claims do not specify an extensible tower), but the vertical adjustability of the bin or receptacle and the boom conduit on the tower.

The court further says of the receptacle:

"A receptacle for storage at the top was a common practice in grain and coal devices and a boom to carry a chute or trough was common in the grain and concrete arts."

This is very true, but it does not touch upon the vital points which are that the conduit *is actually carried by the boom*, and that the receptacle for storage is not at the top of the tower but is *adjustable throughout the height of the tower* to serve all levels of the building from the ground to the roof.

#### THE DECISION OF THE CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT.

It is true that the apparatus in question is used for "wet" or "mush" concrete, as the court says, and that such concrete came into general use not long prior to the date of Callahan's invention. Such concrete, however, was used more than five years prior to his invention, as shown by respondents' evidence in connection with the Ingalls' Building prior use of 1902 (Muensch, R. 146-148; Culp, R. 273). No doubt it was also used to some extent long prior to 1902. As we understand the Ney patent No. 939,072 of November 2, 1909 (R. 846) it was not granted for wet concrete, but for concrete "having therein cells or cavities formed by the withdrawal of water by crystallization" (see claims). Ney in his specification speaks of the use of what is known as "dry" cement as "the general practice" (lines 16-23, R. 847). If, however, the patent warrants the inference that the Patent Office considered wet concrete a new thing in 1909, it must be

assumed that the Examiner who allowed it was not familiar with the practices of the art, in the light of the other evidence in this case.

But even "dry" concrete can be chuted, if the chute is given a relatively steep inclination, and the earlier patents in this record show that this was understood (Potter, British Pat. of 1864, R. 872-876, line 5, and 877, line 18; Montgomery, 1902 Pat., R. 737-739, lines 24-46). It is thought that even had wet concrete not gone into extensive use apparatus like that of the patent would have been found advantageous. It follows that there was need for such an apparatus long prior to Callahan's invention.

The fact that grain spouting and coal chuting apparatus was usable for concrete—possibly with some modifications—but was not used indicates that something more than the equipment provided by such apparatus was required. This apparently argues in favor of the Callahan invention, and not against it as the Court of Appeals in the Third Circuit thought.

This brings us to a consideration of closest approach to the patented combination in respondents' proofs, and the one most seriously considered by the Court of Appeals for the Third Circuit, viz.: the Great Lakes prior use of 1906-1907 (Depositions R. 281, *et seq.* and Exhibit 17M). This was not before the Court of Appeals in the Sixth Circuit, but it is submitted that the patents which were before the Court of Appeals taken in connection with the well known tower, and hopper adapted to be placed at different elevations of the tower (Exhibits 7, 8, 9, 10, "Old Placing Method" Sixth C. C. A. R. 153-156) are its substantial equivalent. Of these patents, perhaps the Baillie British patent of 1888 (R. 905) for coaling ships, the Clark patent No. 718,092 for chute (R. 798), the Parker patent No. 760,015 for Grain Conveyor, (R. 811) and the Theiss patent No. 866,166 of 1907 (R. 833) are the best examples.

These patents show that it was old to employ a hopper and a chute suspended from a supporting boom, with a certain amount of lateral movement, but without provision for vertical adjustment of either. Therefore we say that the present record appears to disclose nothing new in the way of anticipation except the actual use of apparatus of this character for the gravity distribution of concrete, which was we think assumed to be merely a new use for such apparatus by the Court in the Sixth Circuit.

Referring to Exhibit 17M it will be seen that the Great Lakes apparatus included a chute for conveying the concrete to the forms, a wooden trough acting as a hopper to receive the concrete from the mixer and feed it to the chute, and a boom extending out over the chute with ropes or wires by which the chute was suspended from it and supported. The witnesses state that the boom and chute could be swung laterally, but obviously this movement was limited. There was, however, no vertical adjustment of either boom, hopper or chute, and the boom and chute were not so connected that they moved together. It will be said that there was no necessity for vertical adjustment of the Great Lakes boom, chute and hopper, and no necessity for extensive lateral swinging, because the concrete was all placed at substantially one level and over a limited lateral area. It will further be said that if the nature of the work had required such adjustment and swing, the Great Lakes Company could have used the mast and hoist well known in the concrete art and would have mounted their apparatus so that it could be raised or lowered on the tower and swung through a long arc. The question therefore is—

**Was it invention for Callahan to use the Great Lakes boom supported chute and hopper on a tower, and make them vertically adjustable and freely swinging thereon?**

This involves a question of invention, which only this court can decide. If the court finds that there was great need for such an apparatus, in spite of the somewhat limited use of wet concrete, and it solved problems which engineers and workers in the art had failed to solve, the question should be decided in favor of the patent, even though the solution now appears to have been almost obvious. It is not claimed that any of the elements of the patented combination are separately new. The tower, the hoist, the hopper—possibly arranged to be shifted up and down the tower to distribute concrete at different elevations—and the boom-supported chute were known in the art. *Nor is the patent to be limited to any particular form of these parts, since the form may be varied within relatively wide limits.* The patent, if valid, must be held to cover a combination of these instrumentalities or their equivalents *arranged according to a certain general plan*, and for the purpose specified. If limited to anything less than this it would have little value.

#### **The Matter of Costs.**

*A prevailing party is not entitled to recover, as costs, amounts which he has not actually expended.*

By stipulation (R. 659) it appears that with the single exception of one item of \$6.00, the respondents did not pay out, or in any way become liable for any of the items of costs which have been taxed in favor of petitioners. The above stipulation shows that a total of \$1,951.66, taxed in favor of respondents, was never at any time, or in any part, paid by the actual defendants but

instead, all of the expenses of defending the suit have been paid by Sackett Screen & Chute Company, Chicago, Illinois, the manufacturer of the apparatus complained of, and that said company was not a party of record, either as defendant or as an intervenor. Petitioners contend that the Appellate Court in this case erred in affirming the order of the District Court (Appendix D) allowing the taxation of the "disbursements of the manufacturers" who were not parties to the suit.

Petitioners contend that the taxation of the said amount at \$1,951.66, against petitioners and in favor of respondents, was entirely improper and contrary to law for the reason that respondents had not expended any portion of said amount and had never become liable for any portion thereof.

Stated in another way, petitioners contend that, where the costs and disbursements of litigation are paid by a stranger to the record, the prevailing party, on whose behalf such expenditures were made, is not entitled to receive from the losing party any portion of such sum so expended, either for himself or for the benefit of the stranger by whom the expenditures have been made.

The provisions of the Revised Statutes pertaining to costs and fees, and which may have a bearing upon the present question, will be found in Sections 823, 824, 848, 983 and 984.

The pertinent sections are as follows:

"Section 983. Bill of costs, how taxed.

"The bill of fees of the Clerk, Marshal, and attorney, and the amount paid printers and witnesses, and lawful fees for exemplifications and copies of papers necessarily obtained for use on trials in cases where by law costs are recoverable in favor of the prevailing party, shall be taxed by a Judge or Clerk of the Court, and be included in and form a portion of a judgment or decree against the losing party.

"Such taxed bills shall be filed with the papers in the cause."

"Section 984. Bill of costs to be sworn to before taxed or allowed.

"Before any bill of costs shall be taxed by any Judge or other officer, or allowed by any officer of the Treasury, in favor of Clerks, Marshals, Commissioners, or District Attorneys, the party claiming such bill shall prove it by his own oath, or that of some other person having knowledge of the facts, to be attached to such bill, and file therewith, that the services charged therein have been actually and necessarily performed as therein stated."

The whole idea of the taxation of costs is that the successful party shall be reimbursed to the extent of the proper taxable fees and expenses *which have been paid out by the successful party*. That is to say, the successful party shall be reimbursed to the extent permitted by the statute, for expenditures to which, according to the decree, he has been unjustly put.

Manifestly if the successful party (the respondents herein) makes no such expenditures, no such items can be taxed in his favor.

The basis of taxation of costs is not that, during the course of the litigation expenditures have been made, but that such expenditures have been made *by the successful party*.

In the present case, the respondents *of record* took no real part in the defense of the cause; they made no expenditures; are not now and never were obligated to pay a single penny of the \$1,951.66. Petitioners have good reason to believe that, had it not been for the Sackett Company, and their assumption of the entire expenses of this suit, respondents would not have defended, and petitioners would not have been put to the great expense to which they have been put.

It is well settled that a bill of costs must contain only items which the *claimant* has paid or is liable to pay. *Corpus Juris*, Vol. 15, page 179.

We have been unable to find any decision of the point in question by this court but there are a number of decisions of lower courts which, we think, lay down the correct principles.

In the case of *Worcester v. Handy*, 23 Fed. pages 49-65, the question of costs is considered at length, and at page 62, near the bottom, we find the following:

"The statute (section 983) allows the amount 'paid' to witnesses to be taxed. In *Cummings v. Akron Cement, etc.*, 6 Blatchf. C. C. 509, and *Dennis v. Eddy*, 12 Blatchf. C. C. 195, as is clearly to be inferred, the witnesses had been paid, and whether their fees were taxable, inasmuch as it was not shown that they had attended on the service of the subpoena.

"If a party does not pay a witness either before or after he has testified, the presumption is that the debt is forgiven, unless the failure to pay is explained in such wise that the fee can be considered as if 'paid,' because both parties intend it shall be paid."

In the present case, if the witnesses were paid, they were paid by a stranger to the record and, therefore, so far as the appellees are concerned, it is exactly as though the witnesses made no claim for payment because, so far as the appellees are concerned, their services as witnesses were given freely and without expense to respondents.

In *Burrow v. Kansas City, etc.*, 54 Fed. 278, Judge Hammond said on pages 279 and 280:

"Costs in the Federal Courts include, among other items, 'the amount paid printers and witnesses,' (Rev. Stat. Sec. 984 [9832]) and defendant

can therefore recover here only the amount *actually paid by it* to each of these witnesses (*O'Neil v. Railroad Co.*, 31 Fed. 663; *Beckwith v. Eastern*, 4 Ben. 358; *The Highlander*, 19 How. Pr. 334). And it can not even recover the amount so paid if in any instance such an amount exceeds the legal fees due to the witness. Nor can these fees of the different witnesses be grouped together in order to make the sum equal or exceed the entire amount paid to them all." (Italics ours).

In *O'Neil v. Railroad Co.*, 31 Fed. 663, on page 664, we find the following:

"Here the defendant denies its liability under the judgments rendered against it in these cases to anyone but the judgment plaintiff, and challenges the right of these two witnesses to make this application, as not being parties to the suit, nor seeking any relief or payment from the party at whose instance and for whose benefit the fees claimed were earned. In this and like applications the distinction between fees and costs has been entirely overlooked, the latter being an allowance, always given by statute, to the party for expenses paid or incurred in conducting his suit, while fees are compensation to an officer or witness or others for services rendered for the party in the progress of the cause. Strictly speaking, the prevailing party to a suit recovers, *as costs* against his adversary, *only the fees which he himself has paid or is liable to pay.*" (Italics ours.)

In *Shaw Electric Crane Co. v. Shriver*, 80 Fed. 640, Judge LaCombe held that the defendant could not charge as costs "anything for certification fees *which he had not paid.*"

In *Steffins, et al. v. Steiner, et al.*, 232 Fed. 862-864, the defendant, who was a lithographer, prepared certain lithographic exhibits but undertook, in his bill of costs,

to include certain items or amounts for overhead expenses, which were estimated, in addition to the amounts which were actually paid out by him. Under a rule of the court, "the amount paid for printing the record" was taxable as costs.

The Court of Appeals of the Second Circuit said:

"The theory of this rule is that the litigant shall be reimbursed for his *actual expenditure* which, of course, must be a proper expenditure. If, as in this case, a defendant does his own printing, he should receive only the amount actually paid . . . we think, therefore, that defendants were entitled to tax only such sums as were paid by them for labor and material."

In the present case respondents paid nothing for printing; they did no printing; but their stranger friend made them a present of the printed record and respondents are now asking for nearly a thousand dollars for printing. Likewise, respondents were presented, without cost to themselves, with all of the other various items which go to make up the \$1,951.66, *without any cost to themselves*.

Clearly if a man who prints his own record, and a party to the litigation, can only be reimbursed for his actual outlay for labor and material, and cannot be allowed any reasonable items for overhead, then surely the respondents here, who have expended nothing for material, labor, witness fees, overhead or anything else, cannot be favored with a bill of costs such as has been taxed in this case.

The lower courts, in allowing the taxation of the items under consideration, did so apparently upon the theory that, because the Sackett Screen & Chute Company was the manufacturer of the apparatus in question, and, therefore, vitally interested in the outcome of the litigation, *although not bound by any decree therein* because not

a party thereto, the respondents should be allowed to receive these items of expenditure on behalf of the Sackett Company.

This was, we think, a fundamental error because it is well settled that

"A judgment for costs cannot be rendered in favor of any one but a party to the suit." *Corpus Juris*, Vol. 15, page 175.

It is a fundamental proposition that it is not permissible to do indirectly what may not be lawfully done directly. In the present case, no judgment for costs could be rendered in favor of the Sackett Company not only because it is not a party to the suit, but, also because throughout the litigation, although it had entire charge and direction of the defense, it remained so persistently under cover that, even up to the time of the taxation of costs by the lower court, it was not known to petitioners, and petitioners were under the impression that the expenditures on behalf of the respondents had been made by another stranger to the record.

If the Sackett Company, who paid out the items, is not entitled to a judgment for costs, the respondents herein may not, in the face of a showing that they made no expenditure, serve merely as agents for the Sackett Company for the collection of these items of costs from the petitioners.

The general rule adopted with respect to costs in this country is that they are penal in their nature and are, therefore, strictly construed (*Corpus Juris*, Vol. 15, pp. 24 and 25).

Respondents had been put to no expense in the defense of this cause, excepting only a single item of six dollars, to which no exception is made. Every other item involved in the defense has been given to the respondents without cost or liability. Under such circumstances the

lower courts clearly erred and should, therefore, be reversed as to the taxation of costs amounting to \$1,951.66. The lower court should be instructed that only those items of expenditure actually made by a successful party may properly be taxed as costs.

**For the foregoing reasons it is respectfully submitted that the decision of the Circuit Court of Appeals for the Third Circuit should be reversed.**

ARTHUR M. HOOD,  
STEPHEN J. COX,  
CYRUS N. ANDERSON,  
Counsel for Petitioners.

## APPENDIX A.

No. 3241.

IN THE

UNITED STATES CIRCUIT COURT OF APPEALS  
FOR THE SIXTH CIRCUIT.CONCRETE APPLIANCES COMPANY, *et al.*,  
*Plaintiffs and Appellants,*

v.

DIETRICH MEINKEN, *et al.*,  
*Defendants and Appellees.*Appeal from the  
Southern Dis-  
trict of Ohio,  
Western Divi-  
sion.

SUBMITTED MARCH 5, 1919.

DECIDED JANUARY 6, 1920.

Before WARRINGTON, KNAPPEN and DENISON, Circuit  
Judges.Suit upon patents numbered 948,719, issued July 8, 1910,  
to L. Callahan, and 948,746, issued February 8, 1910, to  
A. L. Smith.

This case involves the tower apparatus now in common use for elevating and distributing wet ("mush" concrete upon the successive floors of high buildings, constructed in whole or in part from that material. The apparatus, as now used, involves two steps: first, elevating the material to a reservoir or hopper bin temporarily fixed at the desired elevation in the tower; and, second, distributing it from that elevation, by gravity, through a conduit revolving at the point of connection with the hopper bin and having at least one swivelled elbow joint, whereby any desired point upon the selected horizontal plane can be reached for the gravity discharge of the material. Callahan and Smith each showed, in his drawing, the com-

plete apparatus, but Callahan made no claim to the feature of the double swivelled discharge pipe. Callahan's application was filed January 21, 1909; Smith's on February 23rd of the same year. The Patent Office notified Callahan that his application seemed to conflict with another, and suggested to him some of the claims which Smith had made. Callahan adopted these claims, whereby an interference was declared. The substance of the issue is shown by count one, which is given in the margin.<sup>(1)</sup> Upon this issue, Callahan conceded priority; judgment was rendered upon the concession; Callahan canceled these additional claims; and both patents issued. Both patents, by assignments, licenses, etc., became the property of the Concrete Appliances Company and Insley, and this suit was brought by them in the court below based upon alleged infringement of both patents. The above quoted count 1 of the interference became claim one of the Smith patent, and is typical of those sued upon. Claim 5 of the Callahan patent is here quoted<sup>(2)</sup>, and may be accepted as a statement of his invention said to be infringed. Claims 1, 2 and 13 are also declared upon.

DENISON, Circuit Judge:

It goes without saying that the Smith patent can get no advantage merely because it has been owned and commercially exploited along with the Callahan patent.

(1) "In a device for distributing concrete, means for elevating the concrete to a point above the work to be performed; a hopper adapted to receive the concrete so elevated; a primary distributing pipe revolvably mounted beneath the hopper; and a secondary distributing pipe revolvably mounted beneath the mouth of the first named pipe, substantially as described."

(2) "Claim 5. An apparatus for the purpose described comprising a tower, a conduit extending laterally therefrom, a suitably supported horizontally movable boom carrying the conduit, said boom being adjustably connected with the tower and adapted to be arranged at various points in the height thereof, means for raising plastic material to the point desired in the height of the conduit [tower] and means for receiving plastic material from the raising means and conducting the same to the conduit; the said receiving and conducting means being adjustable in the direction of the height of the tower."

Upon this record, Smith cannot claim to be the inventor of anything shown by Callahan's application,—except as the latter is modified by the later concession of priority. The Callahan patent is not a part of the prior art, in the sense in which that phrase is used with reference only to publications, but the Smith patent, both as to anticipation and as to the presence of invention, must be judged upon the basis of which the earlier Callahan application is a part (*Lemley v. Dobson-Evans Co.*, 243 Fed. 391). It must, therefore, be assumed, as against Smith, that the advance of his claim 1 consisted merely in taking the concrete elevating and distributing apparatus of Callahan and substituting for Callahan's simple discharging conduit, revolving only at the point of attachment to the receiving hopper, the compound discharging conduit consisting of two or more sections revolvably connected with each other<sup>(3)</sup>. We are not convinced that this advance involved any invention. Such a double swivelled conduit was a well known expedient for the gravity conveying of any material which it was desired to discharge at selected points in a lower horizontal plane. It is obvious,—at least when it is pointed out to us,—that with an inclined conduit swing at its upper end, the lower end could be made to reach any desired point on the lower plane, either by changing the angle of inclination and modifying the length of the conduit, as by telescoping a section, or by adding a supplementary conduit revolvably connected with the lower end of the primary one. Neither form had been in use for concrete (before Callahan), but both forms were old for other purposes. The double swivelled form had been most highly developed in grain elevators for distributing the grain from the elevated receiving bin to the several

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(3) We speak thus of Callahan's form, because of the necessary effect of the filing dates, the concession and the form of the issued claims.

openings on the floor below, which indicated spouts leading to still lower storage bins.

If the matter were to be considered in the broadest sense, there might be such distinctions between elevating and distributing grain and elevating and distributing concrete that transferring a device from one art to the other and making the necessary adaptation would involve invention; that need not be decided; but here, *Smith begins at the point where the elevation of the concrete is finished*; he has then merely the question of gravity distribution. He finds that concrete has been distributed and grain has been distributed by a single unitary chute, swinging and turning at its upper end, and that grain has also been distributed by the double swivelled chute, thereby increasing the ability to select exactly the desired point for discharge. In the words which were used in *Crown Co. v. Sterling Co.*, 217 Fed. 381, Callahan had already "bridged over whatever gap there was" between the art of concrete building and the art of gravity distribution, and the "door of opportunity was open" to all who wished to use in the former art an expedient well known in the latter. It seems to us quite clear that there is no invention in adding to the device of Callahan the well-known additional swivelled joint in the discharge conduit. It follows that those claims of the Smith patent sued upon are invalid, and the decree of the court below, which dismissed the bill as to this patent, must so far be affirmed.

At the time these patentees appeared on the field concrete had already come into extensive use as a building material in connection with metallic re-enforcements, and it had been found that it was suitable for buildings of all shapes and of many stories in height. When mixed of the proper consistency, it was called mush concrete, and to handle this material and deliver it efficiently at the place of use in a large building operation was a considerable

problem. Various methods had been employed, but the one most approved consisted in raising it by elevator to the floor or level where it was to be used and there dumping it into wheelbarrows, by which it was conveyed to the various desired points of use upon that level. It occurred to Callahan that he could construct a tower or skeleton elevator shaft which should originally extend, or which, by successive additions, should be made to extend, well above the highest story of the proposed building; that he could attach to this tower, and make vertically adjustable thereon, a receiving bin or hopper carrying a downwardly inclined and revolubly connected discharge chute, which could be swung about to reach various points on the next lower level to that where the receiving bin was fixed; that this *receiving bin and its discharging apparatus* could be *temporarily fixed*, as the building advanced, as positions on the tower suitably elevated above each successive story; that the mush concrete could be elevated inside the tower to these various fixed positions and there dumped into the receiving bin; and that, in this way, the mush concrete could be delivered in an approximately automatic way throughout the successive floors or levels of a building, no matter how high. Upon this record, this *general thought* was wholly novel. It has proved to be of great commercial value. It is common knowledge that, largely within the period since the patent issued, re-enforced concrete has largely superseded all other materials in the erection of large structures, and the record shows that eighty or ninety per cent. of all the important construction work of this class in the country employs this Callahan method, and that all of the larger manufacturers of machinery and apparatus for this general purpose have taken licenses under the patent. It is not too much to say that the invention has played a large part in revolutionizing the building industry, and that it

is not common for a patent in litigation to find itself supported by such a large measure of commercial merit and public acquiescence.

It is not contended that the patent is anticipated, in the strict sense of that term, but the defendant's position, approved by the court below, is that Callahan only put together old and familiar elements, and that his advance did not involve invention over what had gone before. To determine this question, we must know, first, the character of the relations between what was old and this new arrangement, and, second, whether his claims are properly characterized by reference to his real advance. To elevate material to a fixed and invariable height and to distribute it therefrom, by gravity, through a swinging, revolving chute, to different discharge spots upon a lower level, was common. As we have said, in considering the Smith patent, this was familiar in the class of grain elevators. The typical so-called grain elevator, or storage house, was a permanent structure, and grain was carried by various types of elevating apparatus to the permanent top floor or level. From the bottom of the bin there situated, depended a swinging chute which could be moved about so as to discharge, upon the floor below, into any storage bin opening from that level. These grain elevators, like others of similar type shown by the record, entirely lack the only substantial novelty claimed for Callahan. *They did not have a temporary receiving bin or hopper with a connected discharge chute vertically adjustable in an elevator tower, adapted to distribute the material upon successive levels.* If invention lies in this thought and its practical application, the grain elevators are not important.

Next, we are cited to several examples of unloading apparatus for vessels, of which the English patent to Bailie, No. 10,380, of 1888, is as relevant as any. In this de-

vice, which was for transferring coal from a barge to the ship alongside, there was a receiving bin or hopper located in an elevated frame-work or staging on the barge, and from which a depending chute carried the material away by gravity to the proper bunker in the ship. The coal contents of the barge were raised to this point by an endless chain of buckets over an inclined mast or support pivoted to the vertical frame at its upper end. Evidently, as the contents of the hold of the vessel became lowered, this mast must be extended further down, or further to one side, and this could be done either by an extension of the lower end or by lowering the upper pivoted point. The patent shows both methods of adjustment. The bin and pivot could be lowered upon this supporting stage a short distance,—not more than the height of the bin. The point of final delivery was not changed. Such vertical adjustability as there was in the bin was incidental to raising and lowering the whole "tower" to accommodate it to the point where elevation began. We do not find here any substantial disclosure of the real novelty of Callahan's invention, as above stated.

This leaves for consideration only the patent to Theiss, *et al.*, No. 866,166, of September 17, 1907. It is not to be doubted that this is suggestive of the idea and the apparatus of Callahan; whether it is more than a mere suggestion is the question. Theiss' apparatus, like Baillie's, was intended for unloading coal from a barge and loading it into the hold of a ship. It consisted essentially of a tower-shaped structure permanently erected upon the deck of a barge or scow. It was intended to reach a distance substantially higher than the coal receiving hatchways of the particular ship which might be selected to be served; there was never occasion to make it any higher. This tower carried an elevator car or skip which was loaded with coal when it was at the bottom of the

tower, and then was elevated as far as necessary to be dumped into a receiving bin, which bin was capable of vertical adjustment on the tower. This receiving bin in turn dumped into a chute which, at its lower end, discharged through the hatchway of the vessel to be loaded. This chute was not revolvably connected with the bin or tower. It could not be moved laterally. It was carried, by the tower, in ways or guides which gave the chute its inclination and permitted it to slide therein longitudinally. There was a permitted adjustment of the guide by which the angle of inclination could be changed, but this was done by releasing and readjusting and refastening the guide-ways, and could not be done as a part of the operation of the device while in use. The adjustment and fixing of the chute, in order to discharge into a desired hatchway, was a complicated matter. First, the carrying scow must be so positioned and fastened with reference to the ship that the tower was exactly opposite the hatchway. Second, the receiving bin and the chute must be adjusted vertically in the tower at such a position that the chute, in its carrying guides, would be pointed at the hatchway. Third, the chute must be slid downward and outward in the direction at which it was pointed until its lower end entered the hatchway. If, then, it was next desired to reach another hatchway on the same transverse line, the vertical adjustment of the bin and the chute carrier, and the aiming of the chute at the new hatchway and its longitudinal extension into contact therewith, must be repeated. If it were desired to reach hatchways further forward or aft, the scow and its entire apparatus must be released and floated alongside the ship to its new position. In the broadest sense, this patent shows a plan of elevating material to an adjustable vertical height and from there distributing it by gravity to selected positions upon a lower level; but it shows this idea in a

very rudimentary form; it would be practically useless, for the purposes now involved.

In details of construction and of claim reading, there is ample differentiation. Claim 5 of Callahan, above quoted, will not read on Theiss. A comparison of the Theiss apparatus with this claim shows: (a) That the Theiss apparatus is not "for the purpose described," in any restricted sense of that phrase. (b) That Theiss has a relatively short supporting framework, rather than a relatively high and distinctive tower. (c) That while Theiss has "a conduit," it does not "extend laterally therefrom," excepting in the most general sense. (d) That Theiss has no "suitably supported horizontally movable boom carrying the conduit," nor anything which approximates such a boom. (e) That since he has no boom at all, of course, he has no boom "adjustably connected with the tower and adapted to be arranged at the various points of the height thereof"—but it must be said that Theiss' conduit itself has this vertically adjustable connection with the tower. (f) The remaining elements of the claim are literally met well enough by Theiss, save for the distinction as to their use with plastic material.

The question presented by Theiss seems not to be one merely of double use, because the structural differences are too great; but if the physical resemblance were much closer, the defense of double use would be far from satisfactory. (See *Ansonia Co. v. Electrical Co.*, 144 U. S., 11, 18; *Potts v. Creager*, 155 U. S., 597, 606-8; *Hobbs v. Beach*, 180 U. S., 383, 390; *Gold v. Newton*—C. C. A., 2—254 Fed., 824, 827.) *Certainly, the art of loading coal into a ship for fuel is not the same art as that of distributing wet concrete to a building structure; nor is the analogy very close.* It is not at all certain, even if probable, that an experienced building engineer, considering methods of handling wet concrete for a skyscraper, would call to mind a coal-

handling apparatus on a harbor scow. *On the other hand, it impresses us as a bold and original thought that this material could be handled in this way.* Distributing mush concrete through gravity chutes by one apparatus throughout the whole course of building obviously involved difficulties; it had never been handled by gravity chutes at all excepting under simple conditions where these difficulties did not exist,—and then, perhaps, had been done only on paper; on one side was the danger that it would adhere to the chutes and set and choke up the pipes at least at the valves and gates; on the other side, the risk that the elements would disintegrate and the water and the cement and the broken stone fall in separate strata. *Callahan's conception, that this material could be thus treated so as to deliver it from the ground all about the successive several floors, of a high building and with practically no manual labor, except that involved in the story by story adjustment of the apparatus, involved, we think, inventive thought of a high order, when accompanied as it was by the devising of suitable apparatus to carry out the thought, which apparatus substantially differed from anything which had ever been constructed for any purpose,—although every element was old.* It is true, in a sense, that the Callahan device is produced upon the basis of Theiss' structure by substituting for the longitudinally sliding and extensible delivery chute of Theiss, the revolvably mounted chute of the grain elevators; but this is not the whole truth. Callahan built up his tower to a height never thought of by Theiss, and which Theiss could not have accomplished without capsizing his barge; and Callahan supplied a chute-supporting boom attached to the receiving hopper and vertically adjustable with it, a feature which the grain elevators did not have and could not have used. He thereby laid the basis for adapting the structure to a

use fairly distinct from that of either a coal elevator or a grain elevator.

As upon every such question, there is no authoritative decision which compels one or the other conclusion; the doubtful inference is rather one of fact; but we select and refer to a few instances where invention has been found,—by the Supreme Court or by this court,—and the facts of which may well be thought to present no stronger inferences in its favor than do those of the instant case (*Loom Co. v. Higgins*, 105 U. S., 581, 590; *Hobbs v. Beach*, 180 U. S., 383, 393; *Expanded Co. v. Bradford*, 214 U. S., 366, 381; *National Co. v. Aiken*, 163 Fed., 254, 259; *Warren v. Owosso*, 166 Fed., 309; *Morgan Co. v. Alliance Co.*, 176 Fed., 100, 109; *Ferro-Concrete Co. v. Concrete Co.*, 206 Fed., 666; *International Co. v. Sievert*, 213 Fed., 255).

The test of the presence of invention in a new assembly of old elements is sometimes said to be whether a new result is accomplished. This is often not a helpful rule, because its application involves definition of the phrase "new result"; and this opens the original difficulty. Within a narrow definition, every new combination of old elements gets a new result, but this is not the sense in which the phrase is rightly used as indicative of invention. The recent opinion of this court in *Huebner Co. v. Matthews Co.*, 253 Fed., 435, illustrates this situation. The ultimate practical result at which the patentee and his predecessors aimed was to carry packages by gravity upon a runway from one place to another. The patentee was the first to accomplish this with such a degree of efficiency as to make the device commercially popular, but the same result, except in efficiency degree, had several times been reached before, and by apparatus so similar as to be superficially indistinguishable. The patentee had simply added the well-known and common mechanical refinements and expedients already used by others even in

the same art, *e. g.*, he used roller bearings instead of ordinary journal boxes, and we declined to regard this as a new result. We have no intention to depart from that line of our recent decisions (4) of which this one is typical; such refinements are not inventions. On the other hand, we recall no instance of combinations of old elements which has been held to produce "a new result" in a patentable sense and which better deserves that commendation than does Callahan's. The quasi-automatic elevation and distribution of wet concrete under the varying conditions of progressive building and by a single apparatus was an entire novelty. No one had tried to do it; apparently, no one had thought of it; it was useful in a very high degree; and when we find a new result in this complete and extreme sense accomplished by a confessedly new combination,— though of known means,—we think both the purpose of the patent law and the rightful application of the decisions thereunder require that it should be awarded the merit of invention.

We have stated our conclusion that the device of the patent is not an aggregation in the sense that it represents such a mere assembling of old elements as might have been made by the exercise of only ordinary skill. It is at least equally clear that the device is not an aggregation in the more technical sense of the word, but is rather a true combination. It is true that the use of the apparatus involves successive steps, and is at each of its stages under direct or indirect manual control; but, in a fair sense the entire operation of elevating and distributing concrete is a unitary thing. From the time it starts on its journey from the ground to the time it is deposited in the forms, its progress might well be auto-

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(4) *E. G.—Berger Co. v. Trussed Co.*, 257 Fed. 741; *Edwards v. Dayton Co.*, 257 Fed. 980; *Van Dorn Co. v. Mathis Co.*, 260 Fed. 400.

matic. There is clear distinction between this performance and that of the associated washing and wringing machines, discussed by the Supreme Court in *Grinnell Co. v. Johnson Co.*, 247 U. S., 426. In the latter case, both the judgment and the hand of the operator were involved, in submitting to the second operation the material which had finished the first; the juxtaposition of the two machines was a mere matter of convenience; in the present case, the operator can, at the most, only interfere to prevent the otherwise normal completion of second part of what is intended to be the unitary work; and even then his interference will only temporarily stay the normal action. We collected and commented on the decisions of the Supreme Court and other courts on this subject, in *Gas Co. v. United Co.*, 228 Fed., 684. Callahan's patent should not be condemned as an aggregation.

We do not overlook the fact that some, and perhaps a considerable portion, of the practical and commercial success has been due to the use of the feature covered by the Smith patent; but this does not detract from the patentable and inventive merit of Callahan's idea. An oscillating or swinging chute, even without Smith's secondary swivel, would make the primary distribution of the concrete throughout the floor or level, leaving the secondary and more accurate distribution to be accomplished by further means. We have held that the particular means adopted by Smith did not involve invention, and we can hardly say that much of the credit due to public use should be taken away from Callahan because he had not himself adopted an improvement and refinement which, however important to commercial success, was within the grasp of the men ordinarily skilled in the art.

We have considered claim 5. Claims 1, 2 and 13, also in suit, use more general terms and are superficially somewhat broader, but we think in connection with the

specification they necessarily intend that the means for receiving the concrete from the raising means and taking it to the conduit are vertically adjustable in the tower. This may fairly be implied from the requirement that the material is to be raised to a "suitable point" in the tower. It is then seen that all these claims involve what we have thought Callahan's meritorious invention, resting upon the successive story by story operation of the device. With this interpretation, they are not very different from claim 5, but should be treated as other expressions of the same thought in terms nominally of somewhat broader equivalency. These claims, also, should be considered valid.

Infringement is not denied.

The decree below, as entered, must be set aside and the record remanded for a new decree modified in accordance with this opinion.

IN THE

UNITED STATES CIRCUIT COURT OF APPEALS  
FOR THE SIXTH CIRCUIT.

CONCRETE APPLIANCES COMPANY, *et al.*,

*Plaintiffs and Appellants,*

*v.*

DIETRICH MEINKEN, *et al.*,

*Defendants and Appellees.*

No. 3241.

ON REHEAR-  
ING PETITION.

March 2, 1920.

DENISON, Circuit Judge: The application for rehearing brings to our attention a matter not mentioned in the opinion. We selected claim 5 as the one most suitable

for study, because it expressly incorporated those features in which we thought patentable novelty was to be found. One of these features was the horizontally movable boom carrying the conduit, and "being adjustably connected with the tower and adapted to be arranged at various positions in the height thereof." We assumed that this referred to a *vertical adjustment of the boom in the tower*. The assumption is now challenged, because it is said that the adjustable connection between the boom and the tower was that mechanism which provided for a horizontal adjustment of the upper end of the boom on a horizontal track (which defendant has not used), and that the provision for vertical change of the boom in the tower is not adjustability, but rather refers to a dissembling of the parts in one location and reassembling them in another. It is true that the specification refers to a horizontal adjustability, but we do not think that it is this capacity to which claim 5 refers—at any rate, this inference is not clear enough to justify limiting the claim to a comparatively unimportant detail. Such an inference is contradicted both by the fact that this horizontal adjustability of the boom on the tower is made the special characteristic of a group of claims not in suit, and by the fact that the thought is stated in the claim in immediate connection with the reference to "various points in the height" of the tower, and after one reference has been made to the horizontal motion of the boom and the reference to that function apparently finished, while the draftsman turned to the thought of vertical change. It is true, also, that in the form of the invention shown in the drawings and specifically described, the vertical change was to be made by taking out bolts, removing the horizontal platform, raising it and bolting it again to a new position, and that this is not adjustability in the most precise definition. However, it is well within the sense

in which the word is very often used, and we must define it as the patentee intended. For these reasons we adhere to the interpretation of the claim in this respect which the opinion assumed.

It is also true enough that Callahan specifically contemplated building his tower up section by section, as the building progressed; but this was a matter of preference. His drawing shows the completed tower, permitting operation anywhere along its height, and observation of his plan of erection does not change our conception of the real disclosure.

In other respects, further review of the case leaves our stated conclusions unchanged, and the application for re-hearing will be disallowed.

We note that the reference to a mixer, found in line 35, on page 8, is erroneous. The phrase should read "deliver it from the ground all about, etc." In line 31, p. 10, "mixer" should be "ground." In the last line of page 7, "adjustable" should be "adjustably connected." The clerk will make the corrections in the opinion on file.

## APPENDIX B.

IN THE  
UNITED STATES CIRCUIT COURT OF APPEALS  
FOR THE THIRD CIRCUIT.

March Term, 1923.

CONCRETE APPLIANCES COMPANY AND  
WILLIAM H. INSLEY,*Plaintiffs-Appellant,**v.*JOHN E. GOMERY, JOHN C. SCHWARTZ,  
MICHAEL J. O'MEARA AND CONCRETE  
CONSTRUCTION COMPANY,*Defendants-Appellants.*

No. 2982.

Appeal from the District Court of the United States for  
the Eastern District of Pennsylvania.Before BUFFINGTON, WOOLEY and DAVIS, Circuit Judges.  
BUFFINGTON, Circuit Judge.In principle, this case concerns the use of gravity in  
conveying mobile substances from an elevated common  
central point to various working points; in application,  
to the distribution of "wet" or "mush" concrete.Referring to the above general principle of conveying  
mobile matter by gravity, we have the age-worn practice  
of lifting water by power to a reservoir and by gravity  
distributing it through conduits to a fixed point or by hose  
to diverse points. In other words, the problem of lifting  
it to a gravity-sufficient height; of there accumulating it

in storage; from thence conveying it by conduit to a determined place or by hose to an optional point of use. Naturally such general practice was early applied to the movement of such a mobile matter as grain when its volume became large and the word "elevator" became a synonym for the raising, storage and distribution of grain, into individual cars, the ends of the same car, into ships, and indeed into separate hatches.

As an example of the common practice the proof is that prior to 1905 and since then, practically all elevators delivering grain to ships have been equipped with pipes, extending downwardly from the side of the elevator and supported by horizontally movable booms for directing the outlet of the pipes to any desired part of the boat, within range of the apparatus. But not only was such movable conduit's discharge pipe handled by the boom on the elevator, but where the change of the tide or the lower level of the ship, caused by loading, made it desirable, a second or supplemental hopper and an additional spout were suspended from and handled by a boom and tackle on the ship itself. This supplemental hopper received the discharge from the elevator spout, and discharged it into the vessel as change of tide or the settling of the vessel necessitated. The proofs further show that where two ships were lying side by side and it was desired to spout the grain to an outlying, or "second-off" one, it was done by such elevator appliances in spite of the long stretch required. It was also a common practice to provide the spout with a telescopic extension end by which further horizontal reach was effected, due to the varying positions of the ship. Moreover, it will be noted that on such apparatus the function of the boom was not only to raise, lower and swing the spout to reach the hatches of the ship under different conditions of load and tide, but also to draw up and house the spout so as

not to interfere with the navigation or movement of the vessel.

The same general type of grain elevator appliance was used for loading cars. The proof is that "the hopper ends of the spouts were constructed with an enlargement, forming hoppers, and grain spouts were connected to them in the elevators. \* \* \* All types of movable and fixed spouts were used in grain elevators at that time, of the movable type, those in the grain elevators were either portable or so constructed that they revolved around a fixed point. \* \* \* Outside of the buildings they had spouts for shipping grain to cars, which were generally fixed in position with a telescope and either with one opening or two, so arranged that grain could be thrown into either end of the car." Without further statement, it will be seen that the steps of lifting grain to get gravity; of storing to get quantity; or chuting to get delivery; and of boom swing and trough shift to vary locality of delivery; and also of duplication of these shore appliances by supplemental boom and conduit on shipboard; had all been advanced to a high state of efficiency and delivery point variation in elevator grain practice.

The same may be said of coal practice, the proofs showing the contemporaneous use of "coal chutes in connection with coal elevators in stock piles, where the coal was elevated and spouted out through the side of the building into a stock pile and into bins. The spout would be supported in a similar manner to the spouts heretofore referred to as shipping spouts in connection with grain elevators," this, "that the spout could swing in any direction and was suspended from a swinging boom."

Later, when concrete docks, piers and the like came to be built, it was quite natural for contractors to use in building them the apparatus used for grain chuting and to handle and chute concrete in the same way. And such,

the proofs show, was the case as will be seen by reference to but one or two operations. In November, 1906, a concrete foundation for an intake and pumping station was built by the Great Lakes Dredge and Dock Company at Gary, Indiana. Here a car was used on which was a mixer from which the concrete was discharged into a hopper or chamber and from which chutes suspended from a boom located on the car, chuted the mixed concrete down to the coffer dam where it flowed either into piles or was poured in place, the dam being some forty feet in width and of great length. The chutes in the apparatus would be moved up, down and sideways. The apparatus was used for several months and was constructed by a man who had never seen concrete so handled, but had seen it used in grain elevators. In addition to the testimony of the builder of this apparatus, another witness testified as follows:

"The first apparatus we used was a concrete mixer set on a flat car, and the concrete was spouted from the mixer into the bottom of the excavation. We called it chutes then. There was an improvement made on this apparatus to distribute the concrete from one location to another within a radius controlled by a boom holding the chutes or spouts. The ends of the spouts were—the location of the ends of the spouts were placed by swinging the boom that carried the concrete spouts."

The same man the next year used similar apparatus in building a concrete dock at the same place. In this case the apparatus was placed on a scow, a mast being placed in front of a mixer, a boom placed on such mast and a chute suspended by tackle therefrom. As to its mode of operation the constructor testified:

"It is dumped out of the mixer into a bucket, and conveyed up with a cable in a bucket, and dumped into a hopper which is fastened on the tower; and

we have one 50 foot section of 12-inch pipe carried by two booms and fastened on the bottom of the hopper, and as occasion requires placing concrete in forms, we have 8-foot sections or 10-foot sections to take on or off.

"Q. How could you change the point of delivery of the lower end of the pipe?

"A. By adding on a section 10 feet long, or taking it off, as occasion required.

"Q. Was there any other way to change the point of delivery?

"A. By swinging booms and swinging pipe.

"Q. Was this apparatus successful?

"A. Very successful."

Another witness described it thus:

"This apparatus is a concrete equipment built on a scow, consisting of a concrete mixer at the proper elevation so that concrete could be spouted into the concrete dock; and above the mixer was constructed two hoppers, one for stone and one for sand, this being at one end and the other end of the scow being the cement shed. A boom was placed to support the chute, for the purpose of raising the spout so that the concrete equipment could be moved—I meant to state for the purpose of spouting the concrete in the forms for the dock, and also to raise the spout when moving the equipment ahead."

He further testified that the number of chute sections used was determined by the distance from the mixer to the concrete forms and that as much as five or six such sections were used on this work and that the dock itself was five thousand feet long.

There is proof of the use at San Francisco Harbor in 1904-5-6 of substantially similar concrete chuting apparatus placed on a scow. It clearly shows the use of chutes moved to different positions by a boom. A witness thus describing the boom's action, said:

"Well, the boom is the bottom end of it, and sets in a hinged socket, I would call it, and the outer end has a sheave in the end of it, the cable runs from the donkey engine to the sheave in the outer end, which is used to handle the pipe that carries the cement to the cylinders. All the use of this boom is to handle the pipe that carries the cement."

Moreover, a study of the proofs satisfy us that from the time concrete came into use there had been a struggle between the architects and designers, who, as a class, favored the use of dry concrete which would not flow, and the contractors, who, for construction convenience favored wet or mush concrete, which would flow and therefore allow the use of distribution chutes, and that as soon as the use of wet concrete became general, the art used the wet concrete chutes, which it could not use for the dry. In that regard, the proof was that "The more reinforced concrete came into use, the more contractors used wet concrete; and I should say that from 1908 on very much the greater portion of reconstruction work was done in concrete than before; hence, also, the more wet concrete was used since that time." In these evolutionary stages of the concrete art, the proof is that the builders of grain elevators took a leading part in the use and distribution of wet or mush concrete. In that regard, the proof is:

"Architects in general prior to the year 1904-05 demanded that concrete be mixed what is known as very dry; and to such a consistency that it required considerable tamping to make the water flow on top; but grain elevator designers and contractors have never been governed by architects' rules and guidance or specifications, as the elevator designer generally built the elevator that he designed, or that some other company designed; therefore they were a sort of law to themselves, and, in my opinion, were the first designing engi-

neers and contractors to use what is known in the trade as 'wet' or 'sloppy' concrete. In my opinion this was brought about by the use of what is called 'slip' or 'movable' forms. By the use of such form, which is usually about 4 feet high, the wall, column, or girders, is formed by filling the movable form with sloppy concrete and reinforcing, and at the same time, constantly raising the form by a series of jack screws supported on steel bars, which are imbedded in the concrete. The jack screws are fastened into these bars, and by turning down the jack screws the form is forced up; this making the structure one monolithic mass; but to do this the concrete had to be run into the form in a liquid state, and such a liquid state that it did not require tamping, but only spading.

"From the mixer the concrete was spouted into a hoist hopper. This hoist hopper was hoisted by a power to the top of the building as it was in course of construction. When reaching the top a gate, which was provided on the side of the first hopper, was opened and the concrete material allowed to discharge through a spout into another similar hopper, but stationary. This last named hopper was usually located about from 15 to 20 feet away from the side of the hoist tower, and in the elevator work was supported on the movable form. From this hopper the concrete was drawn into wheelbarrows or concrete carts, and with these distributed into the various walls, columns and floors."

An engineering witness described the evolution and growing use of wet concrete in this way:

"About 1902, there was considerable agitation among engineers of all kinds dealing with foundations, as to wet or dry concrete. The engineering fraternity was divided into two camps about that time, one advocating a concrete mixed quite dry and thoroughly tamped, and the other advocating

using a concrete mixed quite wet or mixed to a consistency which would enable it to flow easily, and which did not require tamping after being placed. This agitation to my knowledge, extended over a period of about five years, the wet fellows arguing that from a constructional standpoint the concrete was easier and more cheaply placed and made a more dense mixture. About this time, also, 1902, I joined the Western Society of Engineers and attended the meetings quite frequently, and heard papers read by different engineers on both sides of the question. The use of reinforcing steel in concrete became more customary about 1902, and a former professor of civil engineering of the University of Illinois, Prof. Pence, read a paper before the Western Society of Engineers, describing tests he had made as to the expansion coefficient of concrete, with relation to the expansion of steels.

\* \* \* \* \*

"These experiments brought out the fact that it was possible to use steel and concrete together, so far as the expansion coefficient was concerned, and following this with the increased use of reinforcing steel in concrete it was almost imperative that a wet concrete be used in order to have it properly placed around reinforcing steel. Really, according to my opinion, the introduction of reinforcing steel made it imperative that concrete more of a consistency of liquid be used in order to build the structures then being designed, and this fact made it imperative that in handling this liquid concrete the chute or trough come into play."

Sensing the gradual increased use of the concrete art through these experimental years, it would seem from the proofs that the grain elevator contractors led the way in the broader use of mobile concrete and that as the engineer determined the co-efficient of relative expansion of steel and concrete was such as to permit their joint use

in reinforced building construction generally, the consequent and indeed the insistent call for the use of wet or fluid concrete became more imperative, because such concrete could be better placed around reinforcing steel and that this use of fluid concrete naturally brought with it the employment of fluid carrying troughs.

This insistent call for wet concrete was evidenced by the building requirements made by the City of San Francisco after the earthquake and fire catastrophe. In that regard an experienced engineer who went there from the East to study building conditions testified:

"There are so many different types of buildings in old San Francisco, but, roughly, the most decided change, I believe, was the general adoption of more concrete in the construction of the new buildings. As a rule concrete was substituted for former brick and tile construction wherever possible. Shortly after the earthquake two types of buildings were officially recognized by San Francisco, and generally through California, *i. e.*, class A type, which consisted of a steel frame fireproofed by concrete; and class B building, which consisted almost entirely of reinforced concrete. This necessitated the more general use of wetter concrete than had been practiced heretofore, as walls and floors and fireproofing were of the minimum thickness allowed by safety, and could not be constructed with the older methods of dry concrete."

It is no reflection on the patent office of the United States, but simply an instance of how often the theoretical expert of an art is in his office oblivious to the atmosphere of practical accomplishment in the field of achievement, when we note that, unconscious of this wide, growing and much discussed use of wet cement, the patent office, on November 2, 1909, granted Patent No. 939,072 to A. D. Ney, which was based on the specification statement by him made July 10, 1909, that "In the making of concrete,

it has hitherto been the general practice in mixing the materials as stiff as possible, using only sufficient water to cause the adherence of the material together, and thereafter tamping the material to cause the mass to be as compact as possible in its relatively dry condition. In the operation of making the product of the present invention, a *radically different method is followed in that an abundance of water is employed* in order not only to permit gravity to bring the mass to a solid, compact condition and thereby dispense with the ramming operation, but also to provide sufficient water for the purpose of crystallization. The process of forming the present process is essentially a *wet process*, and distinguished from the relatively *dry process employed* in making concrete."

In the actual state of the working art which the proofs quoted above show in fact existed, and with the measure of the art, as evidenced by the Nay patent above quoted, then held by the patent office, Callahan and a number of other alleged inventors, who thereafter were thrown into interference with each other, applied for patents which had in view the spouting or chuting of wet concrete. Without attempting to settle the questions of priority between these claimants, we may say that the period which embraces their several dates is confined to a comparatively narrow compass and to our mind they all serve to show that at or about the same time the natural mechanical evolution of the concrete art and the possibility of the use of wet concrete mechanically, but instinctively, led all these men to adopt the same general types of mechanical appliances for the chuting of wet concrete. It is a situation to which we feel we may re-apply what was said by this court in *Elliott v. Youngstown*, 181 Fed. Rep., 349:

"Nor is it necessary to dwell upon the suggestion

that applications were made for blue print machines with an automatic cut-off by four different inventors about the same time, Fullman and Herman among the rest. The fact that so many persons caught the idea goes rather to prove that it was simple and obvious, and not that it required inventive genius to conceive. It is not like the case where the art is waiting for the device, and inventors striving unsuccessfully to produce it, under which circumstances invention may well be held to appear."

Restricting ourselves therefore to the single one of these group inventors, we note that on January 21, 1909, Lee Callahan applied for, and on February 8, 1910, was granted Patent No. 948,719, here in suit, for a material transferring apparatus. As stated in the specification, Callahan's alleged invention had "for its general object to provide an apparatus calculated to be used to advantage in transferring concrete or other plastic material from a suitable source of supply to points desired on a building that is being built." It also stated a second general purpose was "to provide an apparatus of the kind stated adapted more especially for use when a building is to embody reinforced concrete." And likewise a third, viz.: "for transferring other material from the ground to the points desired on a building in course of construction." On his apparatus, Callahan was allowed the claims here in question, viz.: 1, 2, 5 and 13, of which the first reads:

"An apparatus for the purpose described, comprising a tower, a suitably supported horizontally movable boom connected therewith, a conduit carried by the boom, means for raising plastic material to a suitable point in the height of the tower, and means for receiving plastic material from said raising means and conducting the same to said conduit."

This is fairly illustrative of the elements of the other three claims. The elements of the quoted claim are first "a tower"; second, "a suitably supported horizontally movable boom connected therewith"; third, "a conduit carried by the boom"; fourth, "means for raising plastic material to a suitable point in the height of the tower," and, fifth, "means for receiving plastic material from said raising means and conducting the same to said conduit."

Comparison of Callahan's apparatus with the prior art shows that it really constituted no advance over that art, but on the contrary, rather a step backward. For example, he either had no knowledge of the use of the open trough or chute, or if he had he made no mention of it or suggestion of its possible use, confining his specification and limiting his claims to "a conduit" or closed pipe. And the proof is that this closed conduit of his claim soon proved worthless on account of clogging and had to be supplanted by the open chute of the earlier art. There was of course nothing new in his element of his elevating tower. That was as old as the elevator art. Making it extensible from story to story involved no more invention than if he had built his tower complete at the start and allowed his building to build up to tower height instead of the tower to the building height. His means to convey the material up the tower was only another name for an elevator cage or container of suitable form and capacity. A receptacle for storage at the top was a common practice in grain and coal devices and a boom to carry a chute or trough was common in the grain and concrete arts. In fact, we are unable to find any element of novelty either in the separate elements Callahan used or in the unification of such elements in the apparatus he suggested. Had the actual state of the prior art been shown to the patent authorities we cannot feel they would

have granted this patent and while we feel embarrassed to find ourselves at variance with the Circuit Court of Appeals of the Sixth Circuit, which in the case of *Concrete Appliances Co., et al. v. Meinken et al.*, 262 Fed. 958, found this patent valid, we feel assured that the meager record before that court wholly failed to disclose the now uncontradicted proofs on which we base our conclusions.

In the advance in the concrete building art with the extension towers to great heights and chutes to great distances, the very magnitude and scale of the work are such as to impress the onlooker and there is danger of one's being misled by their very magnitude into the belief that they must involve invention, but when their principle is sensed it will be found the known principle and practice which marked the art long before this patent, have simply enlarged as construction enlarged its operation. That growth is in this case due to the appreciation of wet concrete and convinced as we are that in roads, piers, docks, bridges and buildings generally, concrete is the growing material of the future, we believe its advance should be in no way embarrassed by this patent by which the art is now sought to be blanketed. The court below held the patent was not infringed; we go a step further and hold Callahan, so far as the claims here involved are concerned, had no such patent claims to infringe. The cause will therefore be remanded to the court below to modify its decree by adjudging the claims in controversy invalid and as thus modified the decree is affirmed.

**APPENDIX C.**

IN THE  
**UNITED STATES CIRCUIT COURT OF APPEALS  
FOR THE THIRD CIRCUIT.**

March Term, 1923.

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CONCRETE APPLIANCES COMPANY,	Appellant,	No. 2982.
v.		
J. E. GOMERY, <i>et al.</i> ,	Appellees.	

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Appeal from the District Court of the United States, for the Eastern District of Pennsylvania.

This cause came on to be heard on the transcript of record from the District Court of the United States, for the Eastern District of Pennsylvania, and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged and decreed by this court, that the decree of the said District Court in this cause be, and the same is hereby modified so as to adjudge the claims in controversy invalid, but otherwise affirmed, with costs.

Philadelphia.

July 24, 1923.

(sgd.)      VICTOR B. WOOLLEY,  
*Circuit Judge.*

On an application with respect to costs seasonably made within the term of the decree, the above order is vacated.

(sgd.) VICTOR B. WOOLLEY,  
*Circuit Judge.*

Received and Filed

Jan. 23, 1924.

SAUNDERS LEWIS, JR.,  
*Clerk.*

**APPENDIX D.**

IN THE  
 UNITED STATES CIRCUIT COURT OF APPEALS  
 FOR THE THIRD CIRCUIT.

March Term, 1923.

No. 2982.

CONCRETE APPLIANCES COMPANY AND WILLIAM H. INSLEY,  
*Appellants,*

v.

JOHN E. GOMERY, JOHN C. SCHWARTZ, MICHAEL J. O'MEARA,  
 AND CONCRETE CONSTRUCTION COMPANY,  
*Appellees.*

Having heard and considered the application of the appellants that the costs in this cause, taxable against them, be limited to such as were actually paid by the defendant users of the alleged invention of the patent; and being of opinion that the manufacturer which supplied the defendants with the alleged infringing appliances and openly defrayed in part the expenses of this litigation are to that extent privy to the action.

IT IS ON this thirty-first day of January, 1924,

ORDERED, adjudged and decreed that this cause be remanded to the District Court of the United States for the Eastern District of Pennsylvania, that the said court modify its decree by adjudging the claims in controversy invalid, and as thus modified the decree is affirmed, with costs to the appellees covering their proper disbursements as users and the proper disbursements of the manufacturers supplying them with the alleged infringing appliances.

VICTOR B. WOOLLEY,  
*Circuit Judge.*